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DUPLICATE

The University of the State of Florida

CATALOGUE

1905=1906

(Temporary Location)
Lake City, Florida

(Permanent Location)
Gainesville, Florida

THE UNIVERSITY

OF THE STATE OF

FLORIDA

CATALOGUE 1905-1906

(Temporary Location)
LAKE CITY, FLA.

(Permanent Location)
GAINESVILLE, FLA.

1905

THE RECORD COMPANY
St. Augustine, Fla.

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Sound Morals the Basis of Good Citizenship.

CALENDAR

1905—September 26, *Tuesday*.....Summer Recess ends.
Examination for Admission.
Registration of Students.
September 27, *Wednesday*.....First Semester begins.
December 21, *Thursday, 4 p. m.*.....Christmas Recess begins.

RECESS

1906—January 1, *Monday, 10 a. m.*.....Christmas Recess ends.
February 6, *Tuesday*.....First Semester ends.
February 7, *Wednesday*.....Second Semester begins.
May 27 to 30.....Commencement Week.
May 27, *Sunday*.....Baccalaureate Sermon.
May 28, *Monday*.....Literary Societies.
May 29, *Tuesday*.....Alumni Meeting.
Oratorical Contest.
May 30, *Wednesday*.....Graduating Day.
May 31, *Thursday*.....Summer Recess begins.
June 1, *Friday*.....Examination for Admission.

SUMMER SCHOOL

June 18, *Monday*.....Summer Term begins.
July 27, *Friday*.....Summer Term ends.

1905

JULY

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OCTOBER

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AUGUST

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NOVEMBER

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SEPTEMBER

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1906

JANUARY

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MARCH

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JUNE

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BOARD OF CONTROL.

N. P. Bryan, Chairman.....Jacksonville
N. Adams.....White Springs
P. K. Yonge.....Pensacola
A. L. Brown.....Eustis
T. B. King.....Arcadia

M. A., Washington and Lee University 1888; Ph. D., Univeristy of Göttingen, 1892; Vice Principal, Norfolk High School, 1894-95; Professor of Latin and Modern Languages, Weatherford College, 1895-99; Adjunct Professor of Romance Languages, Washington and Lee University, 1899-1905; present position, 1905—.

B. S., Guilford College, 1890; B. S., Haverford College, 1892; Teacher of Science, Abington School, 1892-95; A. M., Haverford College, 1896; Professor of Chemistry, Guilford College, 1896-97; Assistant Chemist, N. C. Experiment Station, 1897-98; Chemist in charge of Division, N. C. Experiment Station, 1898-99; Assistant Professor of Chemistry, University of Florida, 1899-1905; present position, 1905—.

B. S., Florida Agricultural College, 1896; Instructor in Mechanical Engineering, Florida Agricultural College, 1896-98; Special Student, Cornell University, Summer Quarter, 1902; Professor of Mechanical Engineering and Drawing, Florida Agricultural College, 1898-1904; Professor pro. tem. of Civil Engineering, University of Florida, December, 1904—June, 1905; present position, 1905—.

Florida Agricultural College, 1891-94; Teacher, 1891-90; Graduate Peabody Normal College, 1896; Principal, Nassau Co. High School, 1896-97; Teacher of History and English, State Normal College, 1897; Teacher of Latin and Mathematics, Florida State Normal School, 1897-1900; Secretary, State Educational Department, 1900-03; Principal, State Normal School, 1903-05; present position, 1905—.

W. F. YOCUM, A. M., D. D.,

Latin and Literature.

Graduate, Florida State Normal School, 1890; Teacher, 1891-92-93-99; Student, Southern University, 1892-93; Student, Peabody Normal College, 1899-1900; Teacher of Mathematics, Florida State Normal School, 1900-05; Student, University of Chicago, Summer Quarter of 1901-05; A. B., University of Chicago, 1905; present position, 1905.

B. S., South Carolina Military Academy, 1886; Principal, Clio School, 1888-89; Principal, Cypress High School, 1889-92; Instructor in English, East Florida Seminary, 1892-96; Graduate Student, Harvard University, 1902-03; Professor of Natural Science, East Florida Seminary, 1896-1905; present position, 1905—.

A. B., East Florida Seminary, 1891; Professor of History and Civics, East Florida Seminary, 1897-99; Professor of Mathematics, East Florida Seminary, 1899-1905; Assistant Commandant, East Florida Seminary, 1900-05; President, Florida Teachers' Association, 1904; present position, 1905—.

B. H. BRIDGES, B. S.,

Assistant in Chemistry.

B. S., University of Florida, 1905.

OTHER OFFICERS.

_____*

Librarian.

MRS. S. J. SWANSON,

Matron.

H. T. PERKINS,

Storekeeper.

*To be supplied.

STANDING COMMITTEES OF THE FACULTY

FOR 1905-06.

The President of the University is *ex officio* a member of all Standing Committees.

ON COURSES AND DEGREES,

Professors YOCUM, FARR, FLINT, ROLFS, and Assistant Professor BLAIR.

ON ENTRANCE EXAMINATIONS AND CLASSIFICATION,

Professors FARR, SCHMIDT, and BENTON.

ON SCHEDULES,

Professors FLINT, CONNER, and COX.

ON DISCIPLINE,

The Commandant, Professors SELLARDS, and THOMAS.

ON PUBLIC FUNCTIONS,

Professors ROLFS, HOCHSTRASSER and ———

ON ATHLETICS,

Assistant Professor BLAIR, the Commandant, and ———

ON STUDENT ORGANIZATIONS,

Professors SELLARDS, FARR, SCHMIDT, THOMAS, and the Commandant.

ON LIBRARY,

Professors THOMAS, ANDERSON, and FARR.

AGRICULTURAL EXPERIMENT STATION

GOVERNING BOARD.

N. P. Bryan, *Chairman.*

N. Adams. P. K. Yonge.

R. L. Brown. T. B. King.

OFFICERS AND ASSISTANTS.

Andrew Sledd.....*Director*
*C. M. Conner.....*Vice Director and Agriculturist*
E. R. Flint.....*Chemist*
E. H. Sellards.....*Entomologist*
F. M. Rolfs.....*Horticulturist and Botanist*
C. F. Dawson.....*Corresponding Veterinarian*
A. W. Blair.....*Assistant Chemist*
†F. C. Reimer.....*Assistant Horticulturist and Botanist*
B. H. Bridges.....*Assisiant Chemist*
W. P. Jernigan.....*Auditor and Book-keeper*
H. T. Perkins.....*Stenographer and Librarian*
J. F. Mitchell.....*Foreman of Farm*
F. M. Stearns.....*Foreman of Gardens and Orchards*

*Superintendent of Farmers' Institutes.
†Resigned.

GENERAL INFORMATION.

Name and History.—The University of the State of Florida represents the culmination of a movement which originated in territorial days.

In the Memoirs of Florida we read: "In 1836 a University of Florida was proposed, of which Joseph M. White, Richard K. Call, Thomas Randall, J. G. Gamble, and others, were named as Trustees in the act of Congress which authorized the sale of lands for its support" (I, 168). This is the first official mention which we find of a "University of Florida." Nothing, however, came of this proposal.

Between this time and the Civil War the movement for public education, both lower and higher, grew considerably in the State. In 1845, when Florida was admitted to statehood, she received from the general government nearly 100,000 acres of land for the establisment of the Seminaries east and west of the Suwanee river; and the East Florida Seminary was established, first at Ocala, in 1852, and later removed to Gainesville, in 1866; and the West Florida Seminary was established at Tallahassee in 1856. There was, however, during this period, no institution in the State bearing the title and exercising the functions of the University of Florida.

The State Constitution adopted in 1868 contained the following provision looking to the establishment of a State University: "The Legislature shall provide a uniform system of common schools *and a University*, and shall provide for the liberal maintenance of the same. Instruction in them shall be free." (Art. VIII, Sec. 2.)

Pursuant to this action, the Legislature of 1869 passed "An Act to Establish a Uniform System of Common Schools and a University." Two sections of this Act are of particular interest.

It is proposed (Sec. 11, 6th): "To use the available income and appropriations to the University or Seminary Fund, in establishing one or more departments of the University at such place or places as may offer the best inducements, commencing with the Department of Teaching and a Preparatory Department, etc., etc.

"*7th.* To keep in view the establishment of a University on a broad and liberal basis, the object of which shall be to impart instruction to youth in the professions of teaching, medicine and the law; in the knowledge of the natural sciences; the theory and practice of agriculture, horticulture, mining, engineering, and the mechanic arts; in the ancient and modern languages; in the higher range of mathematics, literature, and in the useful and ornamental branches not taught in common schools."

The plan outlined in this section is a credit to this State or to any State, and shows a high ideal and purpose of which we may well be proud. But, unfortunately, this ideal and purpose found no tangible manifestation; and the State still continued without an actual University.

The State Constitution of 1885 contains the following: "The Legislature shall provide by general law for incorporating such educational, agricultural, mechanical, mining, transportation, mercantile, and other useful companies or associations as may be deemed necessary; but it shall not pass any special law on any such subject, and any such special law shall be of no effect; *Provided*, however, that nothing herein shall preclude special legislation as to University or the public schools, or as to a ship canal across the State." (Sec. 25.) This action was taken in the summer of 1885.

In the spring of the same year, (Feb. 16th, 1885), the Legislature had passed "An Act Recognizing the University of Florida," which reads as follows:

"The people of the State of Florida, represented in Senate and Assembly, do enact as follows:

"*Section 1.* That the Florida University as organized at the city of Tallahassee be recognized as the University of the State, and to be known as the University of Florida; *Provided*, there shall be no expense incurred by the State by reason of this act.

"*Sec. 2.* That the University continue under its present organization and officers until such further action be taken by the State Legislature as the case may require."

It will be observed that this is "An Act *Recognizing* The University of Florida." This phraseology is due to the fact that a couple of years before this act was past (*i. e.* in 1883) the State Board of Education had projected a plan of consolidation or co-ordination, in accordance with which the then West Florida Seminary was denominated "The Literary College of the University of Florida." Accepting this action of the State Board, the Legislature passed this "Act *Recognizing* the University of Florida." It seems probable, however, that the State Board had in view originally a somewhat different plan from that which found expression in this act of the Legislature.

Meanwhile, in 1870, the State Legislature had passed "An Act to Establish the Florida Agricultural College," in accordance with the Act of Congress of 1862, entitled "An Act Donating Public Lands to the Several States and Territories which may Provide Colleges for the Benefit of Agriculture and the Mechanic Arts."

For the support of such institutions, *Section 1* of this act grants to each State "an amount of public land, to be apportioned to each State in quantity to equal thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the appointment under the census of 1860: *Provided*, that no mineral lands shall be selected or purchased under the provisions of this act."

In *Section 4*, it is required "that all moneys, derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of land script hereinbefore pro-

vided for, *shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks;* and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in Section fifth of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Section 5 defines the obligations which the States assume in accepting these grants:

"*First. If any portion of the fund invested*, as provided by the foregoing section, *or any portion of the interest thereon, shall*, by any action or contingency, *be diminished or lost, it shall be replaced by the State to which it belongs* so that the capital of the fund shall remain forever undiminished; and *the annual interest shall be regularly applied without diminution to the purpose* mentioned in the fourth section of this act, except that a sum not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective Legislatures of said States.

"*Second.* No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings."

Section 8 further demands "That the Governors of the several States to which scrip shall be issued under this act shall be

required to report annually to Congress all sales made of such script until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds."

In 1870 the Legislature of Florida, by an act entitled "An Act to Establish the Florida Agricultural College," accepted the Federal grant upon the conditions and under the restrictions contained in the Act of Congress quoted above, and thereby entered into a *contract* with the United States Government to erect and keep in repair all buildings necessary for the use of the institution.

After decreeing the establishment of a college in accordance with the Congressional requirements and appointing trustees for its control, this act (*Section 7*), authorizes the trustees, "to claim and receive from the Secretary of the Interior the agricultural college land scrip to which this State is entitled by Act of Congress, July 2, 1862, and acts supplemental thereto."

Section 8 prescribes the disposition of the funds: "Ten per centum of the proceeds of the sale of the script, or of the land, may be expended for the purpose of a site for an experimental farm. The remainder of the proceeds shall be *invested in stocks of the United States, or of some of the States of the Union, bearing an annual interest of not less than six per centum on their par value*, and shall remain a permanent fund forever. The annual interest of the fund shall be regularly applied *without diminution* to the purposes set forth in *Section 2* of this act. Donations may be made for specific purposes, and shall be applied to the objects for which they were granted."

Section 9 provides that "No portion of the principal or interest of the fund shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repairs of any building or buildings, or for expenses incurred in selling the scrip, locating the lands, or in managing the funds of the lands."

In 1872 an act supplementary to the act of 1870 was passed; and the State, having availed herself of the act of 1862, received ninety thousand acres of land. The proceeds from the sale of this land was invested in "The Agricultural College Fund" bonds, the par value of which is one hundred and fifty-three thousand and eight hundred ($153,800) dollars. From this fund the college receives about seventy-seven hundred ($7,700) dollars of annual income.

In 1873 a site for the college was selected in Alachua county, but nothing further came of this step. In 1875 the college was located at Eau Gallie, and a "temporary college edifice" was erected. No educational work having been accomplished there, the trustees, in 1878, determined to remove the college, and a committee from the Board was appointed to decide upon a suitable situation. In 1883 Lake City was selected on account of its special fitness; and, the citizens having given to the institution one hundred acres of land and fifteen thousand ($15,000) dollars, the college was established there.

Upon the completion of the main building in the fall of 1884, the doors of the institution were thrown open to students, and from that date there has been a steady increase in its efficiency and usefulness.

In the second catalogue of the new institution, dated "June, 1887," we find in the roster of the Faculty "Rev. J. Kost, LL. D., Professor of Moral Philosophy and Geology, and Curator of Museum." And a foot-note adds this interesting information: "Rev. J. Kost, LL. D., is also Chancellor of the University of Florida." The exact nature of the relationship indicated by this statement may be inferred from the following statement which is found in the same catalogue (1887):

"At the annual meeting of the Board of Trustees of the Florida Agricultural College, held at the College, at Lake City, June 17th, 1886, the following resolution was adopted:

"*Resolved*, That the Board of Trustees of the Florida Agricultural College believe that the educational interests of this State would be advanced and furthered by the consolidation of the Agricultural College and the Florida University, under the name of the University of Florida and Agricultural College, and that we recommend the same."

In the catalogue of the Agricultural College for the following year, the statement that Dr. Kost is "Chancellor of the University" is dropped; but the resolution quoted above is again printed. The following year the resolution also disappears; and the idea therein contained seems to have become quiescent.

About this time (*i. e.* in 1887), in accordance with the Act of Congress known as the Hatch Act, the Florida Agricultural Experiment Station was established in connection with the State Agricultural College, and three years later the Agricultural College became a beneficiary of the Morrill Act. The former act provides the Agricultural Experiment Station with an income from the National Government of $15,000 per year; while the Morrill Act affords the College an annual income of $12,500. The expenditure of both these sums is carefully restricted by the Act of Congress which provides them and which specifies in each case the purposes for which they may be employed.

As regards the name of the institution, matters continued in this condition until 1903. In that year the Legislature passed "An Act Changing the Name of the Florida Agricultural College." The title of University had never been assumed by the institution at Tallahassee under the provisions of the act of 1885; and in 1903 that act was repealed, and the title was transferred to the Agricultural College. The act of 1903 reads as follows:

"*Be It Enacted by the Legislature of the State of Florida:*

"*Section 1.* That the Florida Agricultural College as at present defined by law be, and is hereby changed to, and shall be known as, the University of Florida.

"*Sec. 2.* Any law inconsistent herewith be and the same is hereby repealed.

"*Sec. 3.* This act to take effect upon its passage and approval by the Governor." (Approved April 30, 1903.)

In accordance with this act, the then Agricultural College at once assumed the title of the University of Florida.

The University of Florida existed for two years. By an act of the Legislature of 1904-05 (known as the "Buckman Bill"), this institution together with the Florida State College at Tallahassee, the Normal School at DeFuniak Springs, the East Florida Seminary at Gainesville, the South Florida College at Bartow, and the Agricultural Institute in Osceola county was abolished. In their stead, this act ordains:

"*Section 12.* That there shall be established, and there is hereby created the following institutions of higher education in this State, to-wit: One University to be known as the 'University of the State of Florida,' and one Female Seminary to be known as the 'Florida Female College.'"

For their management, it provides:

"*Sec. 13.* That there is hereby created a 'Board of Control' which shall consist of five citizens of this State who shall be appointed by the Governor and their terms of office shall be for four years, except that, of the first board appointed under this act, two members thereof shall be appointed for the term of two years and three members thereof shall be appointed for the term of four years."

The University of the State of Florida, thus established, begins its scholastic work in September, 1905.

Location.—Acting under a provision of the Buckman Bill, to-wit:

"*Section 16.* The Governor, as President of the State Board of Education, shall cause a meeting of both of said boards to be held in joint session at the capital, and at said meeting shall de-

termine the place of location of the University of the State of Florida, etc."

The State Board of Education and the Board of Control in joint session, on the sixth day of July, 1905, selected the town of GAINESVILLE as the location for the new institution.

For the scholastic year 1905-06, the work of the University will be conducted at Lake City on the campus of the former University of Florida.

Grounds and Buildings.—The domain to be used in 1905-06 comprises three hundred and fifty-five acres. The tract on which the buildings are located lies in the southern extremity of the town, sufficiently removed from the business quarter to avoid its distracting influences, yet near enough to be reached quickly in case of necessity. Of this tract, the thirty acres immediately surrounding the buildings are devoted to a campus, a drill ground, and the tennis courts. The remainder of the land, with the exception of some of the original hummock, is utilized for experimental purposes and as a farm.

The buildings, nine in number, are lighted throughout with electricity, supplied with artesian water, and furnished with all modern improvements.

The *Main Building* is a brick-veneered edifice three stories in height and 90 feet long by 50 feet wide. In it are the Assembly Hall, Lecture Rooms, and the offices of the University.

The new *Science Hall* is a beautiful brick structure after the Spanish style, 130 feet long, 100 feet deep, and is four stories in height. It is thoroughly equipped, in its Laboratories and Lecture Rooms, for instruction and experiment in Science, and compares favorably with any similar building in the South.

The *Chemical Laboratory* is a frame and brick building of two stories and a basement. It contains the Chemical and Physical Laboratories.

The *General Library and Reading Room* is located in a comfortable frame building of one story.

The *Dormitories* consist, at present, of two frame and brick buildings, each two stories in height, in one of which the Dining Hall is situated; and the *new brick dormitory*, built to replace *Foster Hall*, destroyed by fire in 1903, three stories in height, containing all the modern improvements. Each apartment consists of a study and bed room, thus insuring the health and comfort of the occupants. The building is divided into two sections by a fire-proof wall, thus minimizing any danger from fire.

The *Flagler Gymnasium* is a brick structure 137 feet long and 40 feet wide. It is of Oriental design and makes a pleasing architectural contrast to the Science Hall. It consists of a main gymnasium floor with a suspended running track, and a basement in which are located the dressing-rooms, lavatories, bath-rooms, swimming pool, etc. The instructor's offices and the heating plant are in the wings.

The *Mechanical Engineering Building* is a large frame structure two stories in height, in which there is some excellent machinery, and where students are instructed in wood and metal work, drawing, etc.

Besides these nine buildings there is a small but pretty greenhouse which is used in connection with the work in Botany and Horticulture.

Experiment Station.—In accordance with the provisions of the "Hatch" Act, which furnishes annually fifteen thousand ($15,000) dollars for the purpose, the Florida Agricultural Experiment Station was incorporated by the Trustees as a distinct department of the institution in 1887. The station is organized primarily for experiment and research, rather than for instruction. Experience has shown, however, that by judicious management the Experiment Station may be made an important factor in the agricultural education of the students in giving them an insight into experimental investigation of agricultural problems impossible under ordinary conditions. The station work will become,

in the near future, the center of all agricultural instruction in the university.

For the practical benefit of those engaged in agricultural pursuits throughout the State, the results of the investigations conducted at the station are published in the form of bulletins, which are for free distribution. They will be mailed regularly and free of charge to any citizen of the State upon application to the Director.

From time to time Press Bulletins, dealing briefly with current agricultural problems, are issued for distribution to the various newspapers of the State, which are requested to give them circulation among their constituency. Any farmer, or other citizen of the State, who may desire to receive these Press Bulletins direct can obtain them on request.

Correspondence and suggestions from farmers and others interested in the work are much appreciated. Inquiries upon matters of importance to the farmer will, as far as possible, be cheerfully answered.

Endowment.—The income of the University, apart from legislative appropriations, is derived principally from two sources—"The Agricultural College Fund" bonds, yielding an annual interest of about seventy-seven hundred ($7,700) dollars; and one-half of the "Morrill Fund," amounting now to twelve thousand five hundred ($12,500) dollars. The entire income is thus about twenty thousand two hundred ($20,200) dollars.

State Appropriations.—The Legislature of 1905 appropriated one hundred and fifty thousand ($150,000) dollars for the institutions under the direction of the Board of Control.

Scope.—As the Agricultural College of the State, the scope of the institution was well expressed in Section 4 of the Act of Congress (1862) under which the institution was established: "The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic

arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote a liberal and practical education of the industrial classes in the several pursuits and professions of life."

Now, however, since the Legislature has made the former Agriculturial College the University of the State, the scope of the institution must necessarily be enlarged. Without abandoning or weakening the practical courses in agriculture and the mechanic arts alluded to above, the University projects a much larger scheme, which will bring it in line with similar institutions in other States. The details of this enlargement can best be seen in the various courses which the institution now offers to its students, especial attention being called to the Bachelor of Arts Course, and the course in General Science, leading to the Bachelor of Science degree.

Admission.—Applicants may gain admission to the classes of the university by one of the following methods:

I. Students from the public high schools or other officially accredited schools or academies, by presenting a certificate which states in detail that the work required for entrance into the desired class has been satisfactorily accomplished.

II. Students from another college or university in good standing, unless "dishonorably dismissed," by presenting a certificate from the institution previously attended. These will be classified according to the ground already covered.

III. All other students by passing written examinations in the Entrance Requirements. These examinations will be held in June and September of each year on days specified in the University Calendar, both at Lake City and at such other places as may be arranged by correspondence with the President of the university.

ENTRANCE REQUIREMENTS.

1. For the Freshman Class:

No student will be admitted to the Freshman class who has not completed the work required of eleventh grade students in the regular High Schools of the State, except as hereinafter specified. Students who do not bring certificates of this grade from officially accredited High Schools will be required to pass written entrance examinations on the following subjects:

Mathematics.—In *Arithmetic*, the examination will embrace fractions, percentage, profit and loss, commission, insurance, taxes, duties and customs, stocks and investments, interest, partial payments, discount, equation of payments, and evolution. In *Algebra*, the examination will embrace factoring, highest common factor, least common multiple, fractions, simple equations, inequalities, involution, evolution, and numerical quadratics.

In *Geometry*, all of plane Geometry is required.

English.—(*1*) *Grammar.* A thorough knowledge of English Grammar both in its technical aspects and in its bearings upon speech and writing will be required.

(*2*) *Rhetoric.* A year's training in any standard High School Rhetoric and a study of the English Classics recommended by the Association of Southern Colleges.

For Careful Study, Macaulay's *Essay on Milton*, Shakspere's *Macbeth*, Burke's *Speech on Conciliation*, Macaulay's *Essay on Addison*, Milton's *Minor Poems*.

For Reading, Carlyle's *Essay on Burns*, Goldsmith's *Vicar of Wakefield*, Shakspere's *Julius Caesar*, Tennyson's *Princess*, Coleridge's *Ancient Mariner*, Eliot's *Silas Marner*, Lowell's *Vision of Sir Launfal*, Scott's *Ivanhoe*, Shakspere's *Merchant of Venice*, *the Sir Roger de Coverley Papers*, should be used in preparation. Questions on two from each group will be asked.

No applicant deficient in spelling, grammar, punctuation, or paragraphing will be admitted.

Latin.—Three full years' work at least in this study is required. The student should have completed some Beginner's Latin Book such as Collar and Daniels', Harkness' Easy Method, or a similar work. In addition he should have read four books of Cæsar's Gallic War or its equivalent and two orations of Cicero.

This requirement does not apply to students intending to take the Agricultural or the Engineering courses.

Electives.—In addition to the preceding subjects all students must offer at least one year's work in either one of the following:

Greek.—The student should have completed some introductory book such as Gleason and Atherton's First Greek Book or White's Beginner's Greek Book and have read one book of Xenophon's Anabasis.

Modern Language.—An elementary course in either French or German, consisting of a thorough drill in the rudiments of the grammar, and the reading of easy prose authors.

History.—A year's work in History equivalent to the work done in the eleventh grade of the High School.

Elementary Science.—A year's work in either Physics, Chemistry, or Zoology and Botany.

In all cases "a year's work" represents five hours of recitation work per week for the entire school term. A student who is deficient in not more than one of the subjects required for entrance may be admitted with his regular class upon recommendation of the Committee on Entrance Requirements, said condition to be removed during the first two years of his college course.

2. For the Normal Department.

The requirements for entrance to the Normal Department will be found on page 119.

Special Students.—Students who may desire to take special courses will be allowed, upon recommendation of the Committee on Courses and Degrees, to take those classes for which they may be prepared. Such students will be subject to all the laws and

Registration Fee.—A registration fee of $5 per session will be charged all students, except one scholarship student from each county in Florida.

Board and Room Rent.—Students boarding in the Dining Hall will be furnished rooms, heated and lighted, and board at a cost of twelve dollars and a half ($12.50) per calendar month, payable in advance. No deduction will be made for an absence of less than one week.

Books.—The cost of books depends largely upon the course taken. The cost of required text-books is, in no case, a large item of expense, though in the higher classes the student is encouraged to acquire a few of the standard works in his special course.

Uniform.—All students, except those in the Normal Department, are required to provide themselves with a uniform, which is of the best quality Charlottesville cadet gray, and costs about fifteen ($15) dollars, being much less expensive than citizen's clothing of like quality. The uniform may be worn at all times and is neat and serviceable. In order to minimize the heat of summer, students may be required at that time to furnish themselves with a regulation shirt and hat and two pairs of white duck trousers, obtainable at a slight expense.

Laundry.—Students arrange for their own laundry.

Furniture.—All rooms are partially furnished. The furniture consists of two iron bedsteads and mattresses, chiffonier or wardrobe, table, washstand and chairs. The students are required to provide all other articles, including pillows, bedding, washbowl, pitcher, mirror, half curtains, etc.

Cost per Year.—The entire cost of a year's attendance varies, for the average student, between one hundred and twenty ($120) and one hundred and fifty ($150) dollars.

Damage Deposit.—In order to secure the university property against damage, the sum of five ($5) dollars must be deposited at registration. Damage known to have been done by any stu-

dent will be charged to his individual account; all other damages will be prorated among the students.

At the end of the scholastic year this deposit, less the amount deducted, will be returned to the student.

Remittances.—*All remittances should be made to the Auditor, The University of the State of Florida, Lake City, Fla.*

Student Labor.—While it is impossible to guarantee labor to any student, many of them find an opportunity to work, in the shops and elsewhere, thus paying a portion of their expenses. Exclusive of the prescribed practicums, manual labor for the university is remunerated at rates from six to ten cents per hour according to proficiency. Such work, however, must in no way interfere with the regular university duties.

Government.—The university offers first-class advantages to those students who desire a liberal and practical education of a high grade and low cost, and its government is adapted to those who enter with earnestness of purpose to attain this end. Reasonable efforts will be made to lead all students toward this goal; but those who manifest, after a sufficient trial, no tendency to conform to the requirements for diligent work and correct behavior, will be requested to withdraw. The university is neither a reformatory for refractory students nor a suitable place for idlers and triflers, and the atmosphere of morality and studiousness will be maintained.

Furloughs.—No furloughs will be granted during the scholastic year except upon written application *to the President*, from parents or guardian. It is requested that students shall not be taken from their work except in cases of urgent necessity, the loss of valuable time involved and the demoralizing effect of such action being obvious.

Attendance Upon Duties.—No student will be allowed to enter any class or to discontinue any class in which he is enrolled without written permission from the President. Unauthorized action in this respect renders the student liable to suspension.

Students who wilfully absent themselves from classes render themselves liable to suspension without notice.

Students who discontinue their work at the college without obtaining an honorable discharge from the President will appear in the records as dishonorably dismissed.

Residence.—The students are, in general, required to reside in the Dormitories. Upon an application from parents or guardians which meets with the approval and consent of the President of the University, students will be allowed to reside in the town. They will be under the same regulations as are those residing on the campus.

Religious Exercises.—All students are required to attend a daily morning service in the assembly hall, consisting of a selection from the Bible, a prayer and a song. The service is conducted by the members of the Faculty.

The university is absolutely non-sectarian, but attendance upon some form of public worship at least once each Sunday is required of every student. The choice of the place of worship rests entirely with the student or parents. The pastors of all churches take an active interest in the spiritual welfare of the students. A letter from the parent or home church, addressed to the pastor or religious body in the town, will call forth especial care and attention to the student in whose behalf it is written.

Religious Organizations.—There will be a branch of the Y. M. C. A. in the university, to meet every Sunday. In their meetings, the practical rather than the theoretical phases of Christianity will be freely and candidly talked over, and the students will discuss among themselves the special problems which arise in student life. Members of the Faculty, the ministers of the city, and distinguished Christian workers will be frequently invited to address the association. Bible classes are organized in connection with the work.

Christian students, on entering the university, should by all means become identified with these organizations, and parents

should counsel and encourage them in so doing. A note of introduction to the president of the organization will cause especial attention to be given a new student.

Literary Societies.—The literary societies are invaluable adjuncts to the educational work of the university. They are conducted entirely by the students and maintain a high level of endeavor. In addition to the required Forensics, the students here obtain much practical experience in the conduct of public assemblies. They assimilate knowledge of parliamentary law, acquire ease and grace of delivery, learn to argue with calmness of thought and courtesy of manner, and become skillful in thinking and in presenting their thought clearly and effectively when facing an audience.

All students are earnestly advised to connect themselves with these societies, and to take a constant and active part in their work.

Library.—The Library consists of about three thousand volumes. Additional books are purchased as rapidly as possible, and the library is administered in the belief that it exists for the use and benefit of the student body. Consequently, every means is employed to facilitate and encourage their constant use of its resources with as little restriction as is compatible with the proper handling and preservation of the books.

As designated depository of Federal documents, it is increased each year by valuable governmental publications, and it receives in exchange the bulletins and reports of all agricultural stations in the Union.

In the reading room many of the papers of the state and nation and a good number of literary and general periodicals are always accessible.

Athletics.—It is the policy of the University to foster clean, amateur athletics; but the institution proposes to insist that athletics shall be of the character described. To this end, the follow-

ing rules and regulations will govern all athletic contests participated in by students of the University:

1. The management of all athletic organizations which are to represent the University in a public capacity out of town must apply to the Committee on Student Organizations for permission, and, in case the request is favorably considered, must file with the President a list of members who are to be absent, not exceeding the number specified in the request to the Committee. Each member on the list will then receive notice from the Committee, containing a recommendation that he be excused; such notice is not effective as an excuse until countersigned by the President.

2. No person shall represent the University on any athletic team, either at home or abroad,—

(*a*) If he is not a regularly registered student of the University.

(*b*) If he is on probation, that is, if by vote of the Faculty he has been duly notified that a repetition of failure in work, neglect of duty, or breach of discipline, will result in his exclusion from the University.

(*c*) If he has previously represented any other college or university in a given branch of athletics, unless a full year shall have elapsed.

(*d*) If he has previously represented this University, or any other college or university, or both, in a given branch of athletics for four years in the aggregate.

(*e*) If he receives, or has received since September, 1904, any remuneration or consideration of any sort for his services as performer, player, coach, or otherwise, apart from such necessary expense in excess of ordinary expenses, as are actually incurred by him as a member of a college team or of a permanent amateur organization in connection with occasional amateur contests.

This rule excludes any person who competes for money or money prizes, who plays on so-called "Summer nines," or with professional teams, or who directly or indirectly receives remuner-

ation apart from actual expenses as player, coach, trainer, official, or proprietor, or manager, in any athletic exercise or contest.

(*f*) If he is a member of the staff of instruction of the University, even if he be registered as a candidate for a degree.

The application of this rule to the cases of teaching fellows will be left to the Committee on Student Organizations.

(*g*) If he does not secure at the beginning of each season a special certificate of satisfactory physical condition from the college physician and the physical director. Such certificate may be cancelled at any time in case the college physician or the physical director decides that the continuation of training is likely to operate to the physical injury of such student.

3. (*a*) No one shall represent this institution on any baseball or track team who shall have matriculated later than thirty days after the beginning of the second semester.

(*b*) Any person receiving conditions, or making failures, in one-third or more of the subjects in his course shall be disqualified from playing on any athletic team, as aforesaid.

(*c*) *No minor student shall play on any athletic team if his parent, or guardian, indicate objections in writing to the President of the University.*

4. The selection of all coaches for the University teams shall be subject to the approval of the President.

5. No schedule of games shall be made with other institutions or teams unless approved by the Committee on Student Organizations.

Fraternities.—The University admits fraternities among its student organizations. These organizations are subject to all the rules and regulations of the University, and are under the supervision of the Committee on Student Organizations in the matter of their relations to the University, though, in all their private activities, they are entirely in the hands and control of their members.

COURSES OF INSTRUCTION.

LITERARY COURSE.

The following course is prescribed for the Bachelor of Arts degree:

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Latin I	3
History I	2
Physics I	3
Greek I, or French I, or German I	3
	19

Sophomore Year:	Hours per Week
English II	3
Mathematics II	5
Latin II	3
History II	2
Chemistry I	3
Greek II, or French II, or German II	3
	19

Junior Year:	Hours per Week
English III	3
Latin III	3
Electives	12
	18

Senior Year:	Hours per Week
Economics I	3
Electives	12
	15

The Junior and Senior Electives must be distributed among the following groups, not less than three hours per week from two, and six hours from the third:

I. Language Group.	*II. Philosophy Group.*	*III. Science Group.*
English,	Psychology,	Mathematics,
Latin,	Ethics,	Astronomy,
Greek,	Logic,	Chemistry,
French,	History,	Physics,
German,	Public Law.	Geology,
Spanish,		Zoology,
Italian.		Botany,
		Physiology,
		Bacteriology.

To students desiring to make preparation for more advanced philological studies the University is prepared to offer instruction in Hebrew, Sanscrit, Gothic, and Icelandic,—in addition to the regular courses offered in Anglo-Saxon, and Old and Middle High German.

The following courses are prescribed for the Bachelor of Science degree:

MATHEMATICAL COURSE.

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Botany I	3
Physics I and II	5
French I, or German I	3
	19

Sophomore Year:	Hours per Week
English II	3
Mathematics II	5
Chemistry I and II	5
French II, or German II	3
Physiology and Zoology II, or Physiology and Bacteriology I, or Second Modern Language	3
	19

Junior Year:	Hours per Week
English III	3
Mathematics III	6
French, or German	3
Physics III, or Chemistry III, or Zoology I and Botany II	5
	17

Senior Year:	Hours per Week
Economics I	3
Mathematics	3
Electives	8–11
	14–17

The Senior electives must be chosen from the following:

Geology and Mineralogy	5
Zoology and Botany	4
Philosophy	3
Modern Language	3
Mathematics	3
Astronomy	3
Physics	3
Chemistry	3

CHEMICAL COURSE.

Freshman Yerr:	Hours per Week
English I	3
Mathematics 1	5
Botany I	3
Physics I and II	5
French I, or German I	3
	19

Sophomore Year:	Hours per Week
English II	3
Chemistry I and II	5
French II, or German II	3
Zoology I and Mathematics II *b*	5
Physiology and Bacteriology I or Physiology and Zoology II	3
	19

Junior Year:	Hours per Week
English III	3
Chemistry III, IV and V	8
Geology I and II	5
Physics III or Mathematics III	3
	19

Senior Year:	Hours per Week
Economics I	3
Chemistry VI and VII	7
Bacteriology II and Botany II	5
Mathematics, or Physics III or IV, or Materia Medica	3
	18

NATURAL HISTORY COURSE.

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Botany I	3
Physics I and II	5
French I, or German I	3
	19

Sophomore Year:	Hours per Week
English II	3
Chemistry I and II	5
French II, or German II	3
Zoology I and Mathematics II *b*	5
Physiology and Bacteriology I, or Physiology and Zoology II	3
	19

Junior Year:	Hours per Week
English III	3
Bacteriology II and Botany II	5
Geology I and II	5
Electives	6
	19

Senior Year:	Hours per Week
Economics I	3
Zoology II or III and Geology III	4
Biological Research	5
Elective	3
	15

The Junior Electives must be selected as follows: three hours from the Science Group, and three hours from either the Language Group or the Philosophy Group.

The Senior Elective may be chosen from any one of the three Groups.*

The following courses are prescribed for the degree of Bachelor of Science in Agriculture:

*For explanation of this term, see page 37.

AGRICULTURAL COURSE.

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Botany I	3
Physics I and II	5
French I, or German I	3
	19

Sophomore Year:	Hours per Week
English II	3
Chemistry I and II	5
French II, or German II	3
Zoology I and (Zoology II and Horticulure I)	5
Agriculture I	3
	19

Junior Year:	Hours per Week
English III	3
Agriculture II	3
Geology I and Veterinary Science I	5
Chemistry III	3
(Physiology and Surveying I) and Botany II	5
	19

Senior Year:	Hours per Week
Economics I	3
Agriculture III and (Chemistry VIII and Agriculture III *b*)	5
Zoology III and (Veterinary Science II and Bacteriology I)	5
Botany II and IV	4
	17

HORTICULTURAL COURSE.

This course is the same as the course in Agriculture, except that Horticulture II is substituted for Agriculture II in the Junior year, and Horticulture III for Agriculture III in the Senior year.

The following courses are prescribed for the degree of Bachelor of Science in Engineering:

MECHANICAL ENGINEERING COURSE.

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Physics I and II	5
French I, or German I	2
Drawing (4)	2
Shop (8)	4
	22

Sophomore Year:	Hours per Week
English II	3
Mathematics II	5
Chemistry I and II	5
French II, or German II	3
Drawing (4)	2
Shop (8)	4
	22

Junior Year:	Hours per Week
Mathematics III	6
Physics III	3
Mechanics I and Graphic Statics	3
Drawing (8)	4
Shop (8)	4
	20

Senior Year:	Hours per Week
Economics I	3
Mechanics II	5
Mechanics III	3
Steam Engines	4
Drawing (8)	4
Shop (8)	4
	23

ELECTRICAL ENGINEERING COURSE.

This course is the same as the course in Mechanical Engineering in the Freshman, Sophomore, and Junior Years.

Senior Year:	Hours per Week
Economics I	3
Mechanics II	5
Steam Engines	4
Electricity I	8
Electricity II	2
	22

CIVIL ENGINEERING COURSE.

Freshman Year:	Hours per Week
English I	3
Mathematics I	5
Physics I and II	5
French I or German I	3
Drawing (4)	2
Shop (8)	4
	22

Sophomore Year:	Hours per Week
English II	3
Mathematics II	5
Chemistry I and II	5
French II, or German II	3
Drawing (4)	2
Surveying I and II (10)	5
	23

Junior Year:	Hours per Week
Mathematics III	6
Physics III	3
Mechanics I and Graphic Statics	3
Engineering I	3
Engineering II (6)	3
Surveying III (4)	2
	20

Senior Year:	Hours per Week
Economics I	3
Mechanics II	5
Engineering III	4
Hydraulics I	4
Engineering IV (12)	6
	22

SHORT COURSES IN AGRICULTURE AND MECHANIC ARTS.

The following two-year courses are offered to those who desire brief practical courses in Agriculture and Mechanic Arts:

SHORT COURSE IN AGRICULTURE.

First Year:	Hours per Week
English I	3
Botany I	3
Mathematics I *a* and Horticulture I	5
Physics I	3
Agriculture I	3
Agricultural Practice (12)	6
	23

Second Year:	Hours per Week
Physiology and Zoology II	3
Chemistry I	3
Horticulture II *a* and Chemistry VIII	3
Surveying I and Bacteriology I	3
Agriculture II *a* and Agriculture II *b*, or Horticulture II *b*	3
Agricultural Practice (16)	8
	23

SHORT COURSE IN MECHANIC ARTS.

First Year:	Hours per Week
English I	3
Mathematics I	5
Physics I and II	5
Mechanical Practice (18)	9
	22

Second Year:	Hours per Week
Mathematics II	5
Engineering	5
Chemistry I	3
Mechanical Practice (18)	9
	22

In all the preceding courses two hours of Laboratory Work, Drawing, Shop and Surveying are reckoned as one hour in estimating the total number of hours in any course.

PHARMACAL COURSE.

An outline of the work to be offered in this course will be found on page 87.

NORMAL COURSES.

The work required in these courses will be found in detail on page 97.

The following courses will be offered in the Summer School for 1906. The student who successfully completes any one or more of these courses will be given a certificate stating that fact.

SUMMER COURSES.

ENGLISH, FOUR COURSES.
- A Course in Grammar for Teachers;
- A Course in Elementary Rhetoric;
- A Lecture Course on American Poetry;
- A Lecture Course on Tennyson and Browning.

LATIN, THREE COURSES.
- A Beginners' Course;
- A Course in Cæsar for Teachers;
- A Course in Vergil for Teachers.

GREEK, ONE COURSE.
- A Beginners' Course.

MODERN LANGUAGE, TWO COURSES.
- A Beginners' Course in German;
- A Beginners' Course in French.

MATHEMATICS, FIVE COURSES.
- A Course in Arithmetic for Teachers;
- A Course in Algebra;
- A Course in Plane Geometry;
- A Course in Solid Geometry;
- A Course in Plane Trigonometry.

General Science, Ten Courses.

A Course in Psychology for Beginners;
A Lecture Course on Education;
A Course in Physics for Beginners;
A Course in Chemistry for Beginners;
A Course in Analytical Chemistry;
A Course in Physical Geography;
A Course in Physiology;
A Course in Botany;
A Course in Agriculture;
A Course in Zoology.

Most of these classes will meet five times a week throughout the six weeks' term. In some of them, ten hours per week will be offered.

DEPARTMENTS OF INSTRUCTION.

AGRICULTURE.

PROF. CONNER,
MR. CHAPMAN.

The department of agriculture is intended to meet the requirements of the acts of Congress creating and endowing colleges in the different States. From these acts, it is apparent that recognition of agriculture as a branch of collegiate instruction is a distinctive feature of the institutions founded upon the provisions of the national land-grant act. The following subjects will be offered to students in the Agricultural courses:

Agriculture I*a*.—*Soils and Crops.*—The subjects discussed are the origin, composition, and characteristics of soils; the process of soil formation; special properties of soils; the relations of soils to the production of plants; soil amelioration; tillage; effect of cropping; maintenance and restoration of fertility.

Farm crops, the relation between crop and soil, the crop and atmosphere, and crop adaptation are studied. (*First semester, Sophomore year, 3 hours.*)

Agriculture I*b*.—*Fertilizers.*—The various aspects of the subject are: the nature of plant foods; the origin, properties, and uses of fertilizing materials; manures and their effects; relations between fertilizers and individual crops, and the practice of fertilizing economy. (*Second semester, Sophomore year, 3 hours.*)

Agriculture II*a*.—*Animal Husbandry.*—Principles of stock husbandry; breeding of live-stock; adaptations of breeds, and relations of stock husbandry to general farm economy are considered. (*First semester, Junior year, 3 hours.*)

Agriculture II*b*.—*Dairying*.—This includes relations of dairying to farm economy, dairying adaptations of breeds and localities, methods, etc. (*Second semester, Junior year, 3 hours.*)

Agriculture III*a*.—*Feeding Farm Animals*.—This course includes the following subjects: Laws of animal nutrition; composition of the animal body; fodders as a source of nutrients; digestion, resorption, circulation, respiration and excretion; formation of muscle, flesh and fat; composition and digestibility of feeding-stuffs, and their preparation and use; feeding for fat, for milk, for work and for growth. (*First semester, Senior year, 5 hours.*)

Agriculture III*b*.—*Rural Law*.—Such topics as property classification, distinction between classes of property, boundaries, fences, stock laws, taxes, rents, and contracts are treated. (*Second semester, Senior year, 2 hours.*)

BOTANY AND HORTICULTURE.

PROF. ROLFS,
MR. ————.

The department is well equipped for carrying on work of instruction. Microscopes and accessories are available for work of investigation. For instruction in Botanical work a good microtome, student's microtome, embedders, apparatus for micro-photography, glassware and apparatus for Physiological Botany, are found in the department.

The library contains a representative collection of works on Botany and Horticulture and allied subjects.

In Horticultural work the greenhouses are used for instruction, and in addition a small but well equipped laboratory is available. In the orchard, blocks of peaches, plums, persimmons, pecans, oranges, grapes, and figs are found, affording excellent opportunities for the study of these separate groups of fruits.

The herbarium contains a representative collection of specimens of Florida plants as well as a large number from other parts of the country.

The cryptogamic herbarium, although not large, contains a good working collection of economic species to which additions are being constantly made.

Material for class work in Botany can be easily obtained at all seasons of the year. The flora found in the vicinity of Lake City is peculiarly rich both in phanerogamic and cryptogamic plants. In addition material can usually be obtained from the Horticultural grounds, from the greenhouse and from the Agricultural Department.

BOTANY.

Botany I*a*.—*Elementary Botany.—Lectures and Laboratory Work.*—This subject embraces the study of morphology of roots, stems, leaves, fruits, and seeds, and terms used in Descriptive Botany. A large part of the work in plant physiology is performed in the greenhouse or in the physiological laboratory. (*Required of all scientific and agricultural students; first semester, Freshman year, 3 hours.*)

Botany I*b*.—*Systematic Study of Plants.—Lectures and Laboratory Work.*—Special types are studied, beginning with the simplest, and advancing to the most complex. Field work upon special groups of plants is undertaken during the spring months. (*Required of all scientific and agricultural students; second semester, Freshman year, 3 hours.*)

Botany II.—*Histology.—Lectures and Laboratory Work.*—Structure and development of the tissue of higher plants in relation to their function. (*Required of natural history and agricultural students, and elective for Junior mathematical and chemical students; second semester, Junior year, 5 hours.*)

Botany III.—*Plant Pathology.—Lectures and Laboratory Work.*—A study of the nature and cause of plant diseases, including a systematic consideration of parasitic fungi. The theory and prevention of disease, the relation of crops and fungicides, are

considered. (*Required of agricultural students, and elective for natural history and mathematical students who have taken courses I, II, and III; second semester, Senior year, 4 hours.*)

Botany IV.—*Forestry.*—A course of lectures on the principles of forestry, the influence of forestry on climate, fruit growing, etc., is given. Forest cropping, protection, the use of Florida woods, etc., are taken up. (*Elective for natural history and agricultural students, first semester, Senior year, 4 hours.*)

Biological Research.—Students who desire to do additional work in Botany will be assigned to a special problem or be allowed to select some particular line of work on this subject. (*Required of all special botany students, natural history course; both semesters, Senior year.*)

HORTICULTURE.

Horticulture I.—*Plant Propagation.—Lectures and Laboratory Work.*—In this course instruction is given in the principles of plant multiplication. Students are instructed in the making of cuttings, in budding, grafting, seed testing, transplanting, etc. (*Required of agricultural students; second semester, Sophomore year, 5 hours.*)

Horticulture II*a*.—*Pomology.—Lectures and Laboratory Work.*—The work in this course deals with the principles of fruit growing. Particular attention is paid to those fruits which are of commercial importance to the State. The principles underlying the growing of citrus fruits, pineapples, peaches, etc., are thoroughly discussed. (*Required of horticultural students; first semester of Junior year, 3 hours.*)

Horticulture II*b*.—*Olericulture.*—The growing of vegetables in Florida is a very important industry. The seasons in which the different vegetables may be grown, cultural methods, irrigation, fertilizing, and marketing, are all covered. Practical work in vegetable growing is also given. (*Required of horticultural students; second semester, Junior year, 3 hours.*)

Horticultre III.—*Evolution of Plants.*—Lectures and recitations covering the various phases of evolution as bearing upon

our cultivated plants, together with a discussion of the principles of plant breeding and improvement by selection and cross-fertilization. (*Required of horticultural students; first semester, Senior year, 5 hours.*)

Horticultural Reading.—By the time the student has reached the *last half of the Senior year*, he is in a position to do independent work. A well-equipped library enables him to become acquainted with the horticultural writers on various subjects. Under the supervision of the instructor a large portion of his time is given up to reading along certain specified lines.

Investigation.—Throughout the *Senior year* each student in the Horticultural course is required to pursue some line of original research. Every possible assistance is given in the work and the student's time is devoted to some problem agreed upon by the professor in charge.

CHEMISTRY.

PROF. FLINT,
ASSISTANT PROFESSOR BLAIR.

The facilities for instruction in chemistry compare favorably with those of the larger institutions of the South, and are being steadily improved. Besides all necessary glassware and chemicals, the department is equipped with a five horse-power gasoline engine, dynamo, grinding machinery, microscopes, balances, spectroscope, polariscope, and other instruments for special investigation. The rooms devoted to chemistry include a commodious lecture room provided with the necessary facilities for demonstration, a capacious, well lighted and ventilated laboratory for general chemistry, and a smaller room, supplied with the necessary conveniences, for advanced chemical work. In addition to these are balance rooms and store rooms. In the laboratories, the desks are supplied with water, gas and electricity.

COURSES.

Chemistry I.—This course is on general inorganic chemistry. During the first semester, the non-metallic elements are studied, by means of a text-book, lectures and recitations. Special attention is given to the principles underlying chemical union, and the theories and laws which govern the science.

In the second semester the metals and their more important compounds are studied in the same manner. (*Three hours a week throughout the Sophomore year is required of all students.*)

Chemistry II.—This is a laboratory course in general chemistry. In order to impress the principles of the science upon the minds of the students, they are required to repeat in the laboratory many of the experiments seen in the lecture room, taking notes of the same, and writing the chemical reactions as far as possible. Each one is required to perform over a hundred experiments designed to illustrate chemical principles, including the preparation of many of the elements and their most important compounds.

In the second semester the laboratory work is designed to study the reactions of the metals with a view to their classification. During this semester a portion of the time is devoted to a thorough course in dry analysis. (*Two exercises a week throughout the Sophomore year. Required of all students in the scientific courses.*)

Chemistry III.—This is a laboratory course in qualitative analysis, in the Junior year. (*Three exercises a week, elective in the A. B. course.*)

Chemistry IV.—Includes course III with two additional exercises a week in the same line of work. (*Offered as an elective in the Science courses, and required in the chemical course.*)

Chemistry V.—This is a course in organic chemistry which includes lectures and recitations, although a text-book is largely depended upon, "Remsen's Introduction to the Study of the Carbon Compounds" being used. In the latter part of the second semester a portion of the time is devoted to organic preparations in the laboratory. A short course of lectures on the subject of

metallurgy is given in the latter part of the semester, in which the chemistry involved in the reduction and fabrication of the more useful metals, as iron, copper, zinc, lead and silver, is explained. (*Three hours a week throughout the Junior year, required of students in the Chemical course.*)

Chemistry VI.—This is a laboratory course in quantitative analysis. (*Elective in the Senior year to students in the B. S. courses. Three hours a week.*)

Chemistry VII.—In this course five exercises a week are devoted to laboratory work. During the first semester this is given to quantitative analysis, the exercises being selected with a view to familiarizing the students with the leading quantitative operations involved in the gravimetric, volumetric and electrolytic methods in vogue. As far as possible, the work of each individual is selected to aid especially in the line of work he may wish to pursue in the future, as medicine, pharmacy, analytical chemistry, etc.

During the second semester the laboratory work is still further specialized for each student and is devoted especially to investigation on some one subject, leading to material for a thesis.

During two hours a week a course is given in chemical technology which comprises a consideration of the chemical principles involved in the manufacture, refining and preparation of the leading products of commercial importance. "Thorp's Outlines of Industrial Chemistry" is used as a text, lectures being given occasionally enlarging upon or explaining the subject matter of the book. Among the subjects studied may be mentioned fuels, sulphuric acid, the soda industry, the chlorine industry, fertilizers, cements, glass, pigments, coal tar, mineral oils, soap, starch, sugar, fermentation industries, explosives, textile industries, paper, leather, etc. In connection with this visits will be made to such factories and chemical industries as may be accessible.

To those who desire it, a short course during this time is offered in the assaying of gold, silver and lead. (*Seven hours a*

week throughout the Senior year. Required of students in the Chemical course.)

Chemistry VIII.—A course of lectures in agricultural chemistry, embracing the chemistry of soils, the atmosphere, plant and animal growth and feeding, fertilizers, dairy products, insecticides, etc. (*Three hours a week for one semester in the Senior year. Required of students in the Agricultural course.*)

CIVIL ENGINEERING.

PROF. BENTON,
ASSISTANT PROFESSOR COX.

Instruction in civil engineering is given by (1) recitations, based on assigned lessons in standard text-books; (2) lectures, designed to supplement text-book instruction; (3) laboratory work, to give the students familiarity with engineering instruments, and with the making of engineering measurements and tests, and (4) field work, in which the student, under guidance of the instructor, carries out work of the same nature as in actual engineering practice. The following courses are required of all civil engineering students; and Surveying is also required of agricultural students, Junior year.

Surveying I.—*Elementary Surveying.*—Class room and field work is given in chain surveying, use of compass and transit, computation of areas, use of level, differential and profile leveling. (*First semester, Freshman year; class room, 1 hour; field work, 2 hours.*)

Surveying II and III.—*Advanced Surveying.*—Theory and use of surveying instruments; land surveying; use of plane table; topographic and hydrographic surveying; city surveying; measurement of volumes; geodetic surveying; determination of lati-

tude, longitude, and time; cartography. (*Sophomore year, both semesters; class room, 1 hour; field work, 4 to 6 hours; continued in Junior year, field work, 4 hours.*)

Engineering I.—*Railroad Engineering.*—Railway location; computation of earthwork; subgrade and track structures; economics of railroad operation. The field work consists of the reconnoissance, preliminary, and location survey, followed by laying out curves and estimating earthwork, track work, and track structures, which would be necessary to build a railroad to connect two points in the neighborhood of Lake City. The principles underlying the field work, and the results obtained, are discussed in the class room. (*Both semesters, Junior year, 3 hours.*)

Engineering II.—*Municipal Engineering.*—Roads and pavements; testing of road materials; sewerage and sewage disposal; water supply engineering, including computation of rainfall and run-off, methods of collection, storage and distribution. (*Both semesters, Junior year; class room work, 3 hours.*)

Engineering III.—*Structural Engineering.*—Structural details; bridges; roof trusses; plate girders; masonry structures; arches and stereotomy; dams; foundations.

Materials of Construction.—Study of the methods of production and of the properties of all the more important materials of construction. (*Both semesters, Senior year, 4 hours.*)

Engineering IV.—*Applied Mechanics and Engineering Laboratory.*—A knowledge of calculus is presupposed. Statics and dynamics of material points and of rigid bodies; centers of gravity, moments of inertia; work, power, energy; stresses and strains; beams, columns, simple structures. Numerous problems are assigned. The work in the laboratory consists of the use of computing instruments; determination of centers of gravity; testing materials for strength and elasticity; cement testing; testing of beams, columns, and simple structures.

Estimates of Cost.—This course is intended to serve the same purpose as the corresponding course in the department of Me-

chanical Engineering. (*Senior year, part of second semester, 3 hours; both semesters, Senior year, 6 hours.*)

Hydraulics.—Hydrostatics; pressure against walls and dams; strength of pipes; flow through pipes and orifices, and over weirs; fluid friction; flow in open channels; hydraulic machinery; canal construction; improvement of rivers and harbors. The laboratory work consists of hydraulic measurements for the determination of quantity of flow, velocity, pressure, and loss of head in pipes and conduits; testing of meters; study of hydraulic machinery. (*Both semesters, Senior year, 4 hours.*)

ELECTRICAL ENGINEERING.

PROF. BENTON.

The work of the Freshman, Sophomore, and Junior years in this department is the same as the work in Mechanical Engineering for those years. The work of the Senior year is as follows:

Electricity I.—*Dynamo.—Electric Machinery.*—The principles of action of direct-current dynamos and motors; calculations of dynamos and motors; determination of characteristic curves; designing of electrical machinery; electrical testing.

Alternating Currents.—Principles of single phase and polyphase alternating currents; alternating current machinery; theory of the transformer. (*Both semesters, Senior year, 8 hours.*)

Electricity II.—*Electric Lighting and Transmission of Power.*—Electric lighting; photometry; principles of illumination; design of distributing systems.

Telegraph and Telephone Engineering.—Design of telegraph and telephone lines; submarine cables. (*Both semesters, Senior year, 2 hours.*)

ENGLISH AND GERMAN.

PROF. FARR.

English.—The work of the department is designed to meet the requirements for a practical and liberal education, and is regarded both as a necessary auxiliary to the training in technical courses, and as an important factor among the liberalizing studies. The three sides of the subject, Rhetoric, Linguistics, and Literature, are presented as fully as the time allotted will permit. While Rhetoric and Composition are especially stressed in the lower classes, Literary studies in the higher, and linguistic work in electives, still the attempt is made to keep the three view-points before all classes as necessary to a mastery of their native language.

English I.—*Composition and Rhetoric.*—This course is designed to train the students in methods of clear and forceful expression. Throughout the year instruction is carried on simultaneously in formal rhetoric, in rhetorical analysis and in theme writing, the constant correlation of the three as methods of approach to the desired goal being kept in view. In addition the Essays of Macaulay are studied throughout the year, and a private reading course is assigned to the individual student. (*Throughout the year for all Freshmen, 3 hours.*)

English II.—*History of Language and Literature.* — This course is intended to furnish the student an outline of the historical development of the English language and literature both as a cultural end desirable in itself and as giving the proper perspective for future study of literary epochs and types. A text with selections from the important prose writers and poets, a course of lectures covering the history of the language and literature, a manual to be used for reference, frequent reports on interesting phases of the subject from the individual students, and a constant use of the University library, are the methods employed in instruction. Tennyson's Idylls of the King and Browning's Blot in the

'Scutcheon are critically studied in class, and a private reading course is assigned to each student. (*Throughout the year for all Sophomores, 3 hours.*)

English III*a.*—*Milton and the Epic.*—This course centers in a study of the Paradise Lost, around which are grouped studies in the Age of Milton and in the Epic as a type in Comparative Literature. The first four books of the poem are read in class. Written reviews on the remaining books alternate each week with essays from the student and lectures by the instructor on various phases of the subject. A reading course in the minor poets of the age and in the English translation of the great Epics is assigned to each student. (*Required in all courses except Engineering; first semester of Junior year, 3 hours.*)

English III*a.*—*Shakspere and the Drama.*—This course follows the above method. Three of the Shaksperian plays are read in class. On eight others a written review is held each fortnight and on the alternate week essays are written and lectures are given by the instructor. Readings in the English Drama from the Cycle plays to contemporary production are assigned to the students. (*Required in all courses except Engineering; second semester of Junior year, 3 hours.*)

English IV*b.*—*The English Novel.*—In recognition of the fact that a large part of the reading of most Americans is in this line, a course in the Novel is offered. This subject is studied in suitable texts from the two sides of chronological development and of technique; and the student reads a list of novels chosen to illustrate chronology and variety of species, analyzes minutely one novel from the technical side, masters the entire work and life of one novelist, and compares closely a novel and a dramatized version of it. It is hoped that the student may be so grounded in the classics and his taste and judgment so trained that his reading in this class of literature may not become mere intellectual dissipation. (*Elective, first semester of Senior year, 3 hours.*)

English IV*b*.—*The Romantic Revival*.—This course is planned as a study in literary movement. The causes and forces which underlie the movement, its phenomena and the authors and works which exhibit them, and a comparison with other movements in literature will be considered. The work of Prof. Beers will be used as a basis and the student will be led, by means of extensive reading, by investigation and essays and by lectures on the wider ranges of the subjects, to realize the truth of his statements. (*Elective, second semester of Senior year, 3 hours.*)

English V.—*Anglo-Saxon Grammar and Reading*.—The student is drilled in the forms of the early language and an elementary view of their relations to the other members of the Aryan family and their developement into Modern English are given. The texts in Bright's Anglo-Saxon Reader are studied and Cook's edition of the Judith is read. (*Elective for Juniors, both semesters, 3 hours.*)

English VI.—*Chaucer and the Middle English Grammar*.—During the first semester the works of Chaucer are read in and out of class. The pronunciation, grammatical forms, scansion, condition of text, analogues and sources are closely examined. During the second semester, Morris and Sheats' Specimens, Part II, is studied in connection with informal lectures on Middle English viewed as developing from Anglo-Saxon into Modern English. (*Elective for Seniors who have taken English V; both semesters, 3 hours.*)

German.—The usual methods of instruction (conversation, composition, grammar, and translation) are employed in the department, but all as subsidiary to the desired end, which is to enable the student to read the language with ease.

German *A*.—*Elementary Course*.—This course consists of a thorough drill in pronunciation and important grammatical forms, dictation, written exercises, memorizing of vocabularies and short poems, translation of about 100 pages of easy text, and sight read-

ing. It is intended for students who are unprepared to begin the college work in the department. (*5 hours, both semesters.*)

German I.—*Intermediate Course.*—Translation in class of intermediate and advanced texts, sight reading, monthly assignments for private reading, advanced grammar including syntax, and prose composition will embrace the work of the year. (*Freshman or Junior elective, 3 hours throughout year.*)

German II.—*Advanced Course.*—A number of the works of Lessing, Goethe, and Schiller will be read in class and as private assignments: and, in addition, a History of German Literature will be studied. (*Sophomore or Senior elective, 3 hours throughout year.*)

German III.—*Middle High German.*—Paul's Mittelhochdeutche Grammatic and Bachmann's Mittelhochdeutches Lesebuch will be used in this course. (*Elective for Juniors who have taken II, 3 hours, both semesters.*)

German IV.—*Old High German.*—Braune's Althochdeutche Grammatic and Althochdeutches Lesebuch. (*Elective for Seniors who have taken III, 3 hours, both semesters.*)

HISTORY AND ECONOMICS.

PROF. THOMAS.

Since history is so comprehensive, it is impossible to cover the whole field in a few courses. The primary object of the following courses is to give the student some idea of the growth of nationalities and of political institutions. Considerable library reading will be required in all classes. In the higher classes the students will be given subjects for investigation for training in the habits of research and independent thinking.

History I.—*Mediæval and Modern Europe.*—This course covers the period from the dissolution of the Roman Empire to modern times. Special attention will be given to Monasticism, the growth of the Papacy, Feudalism, Absolutism, and the rise of the National States, the Renaissance, the Reformation, and the political reforms in England. Text-book: Robinson's History of Western Europe, with collateral reading and supplementary lectures. (*Required of A. B. students; both semesters, Freshman year, 2 hours.*)

History II.—*The French Revolution and Europe in the Nineteenth Century.*—A careful study is made of the social and financial condition of France before the Revolution and of the influence of the Philosophers upon the course of events. The career of Napoleon is studied chiefly for such of his work as had a permanent influence. The Congress of Vienna, the subsequent revolutions, the unification of Italy and of Germany, the Eastern Question, and the partition of Africa receive due attention. Text-books: Lowell's Eve of the French Revolution, Mathews's French Revolution, and Mueller's Political History of Recent Times. (*Required of A. B. students; both semesters, Sophomore year, 2 hours.*)

History III.—*Political and Constitutional History of the United States.*—The whole period of our history will be covered, but special attention will be given to certain subjects. Chief of these will be the distinction between the corporate and proprietary colonies, the machinery of imperial control, the development of a sentiment for Union and the revolt from England, the formation and adoption of the Constitution, the division into National and States Rights parties, expansion, slavery debates, secession, Reconstruction and its undoing, tariff and financial legislation, the War with Spain and its results. Some of the American History Series will be used as texts, but much library work will be required. (*Elective; both semesters, Junior or Senior year, 3 hours.*)

History IV.—*Political and Constitutional History of England.*—Emphasis will be laid upon the foundation of the Nation by the union of the petty kingdoms, the introduction and decay of Feudalism, the judiciary, the rise of Parliament, and the struggle for religious and political liberty. (*Elective; both semesters, Senior year, 3 hours.*)

The second two of the following courses have been arranged with special reference to the needs of those who expect to follow the law or enter politics; the other two are intended to serve as introductory to the study of the problems of society. Though they are not required to do so, students will find it to their atvantage to take History III or IV as introductory to Public Law I and II.

Economics I*a*.—*Economics.*—An elementary course, introducing the student to the general theory of economics and suggesting applications to present day problems. (*Required of all students; first semester, Senior year, 5 hours.*)

Economics I*b*.—*Sociology.*—An introductory course dealing with such questions as the origin of society, the causes and modes of social activity, the origin and evolution of the family and the State. Some of the present day problems will also be taken up, such as the tramp problem, the treatment of criminals, especially juvenile offenders, and the care of the poor and aged. (*Required of all students; second semester, Senior year, 3 hours.*)

Economics II*a*.—*Public Law 1.*—A study of the governments of the principal European and American States with special reference to their constitutions. The work will be based on the texts of the constitutions and on Burgess and Wilson. Some attention will also be given to the main principles of political science. (*For Juniors or Seniors; first semester 1906-07, 3 hours.*)

Economics II*b*.—*Public Law 2.—International Law.*—Davis's Elements of International Law will be used as a text, but much emphasis will be laid upon the study of cases and of diplomatic papers. (*For Juniors or Seniors; second semester 1906-07, 3 hours.*)

LATIN AND GREEK.

PROF. ANDERSON.

The study of the Classics contributes largely to general culture. In addition to the recognized and peculiar disciplinary value of such studies, and their conspicuous service in cultivating the literary sense and developing literary taste, they have a more immediate value and office as aids to the comprehension and interpretation of modern languages and literatures. A thorough study and a full understanding of any modern language, especially the Romance Languages and our own tongue, demand a considerable preliminary acquaintance with Latin and Greek. Thus from two points of view, that of their own intrinsic beauty and value as culture studies, and that of subsidiary aids to the study of other and modern languages, Latin and Greek command our attention, and call for a large place in any curriculum which proposes to issue in a liberal education.

The following courses are offered for the coming year:

LATIN.

Latin I.—*An introductory Course in the Roman Epic.*—Several books of Virgil's Æneid will be read, and studied with reference to their poetic and metrical structure, their mythological content, and their peculiarities of form, syntax, etc.

Advanced prose composition will also be studied throughout the year, and the student will read privately large parts of a good poetic translation of the Æneid. (*Required of A. B. students; both semesters, Freshman year, 3 hours.*)

Latin II.—*A Course in the Roman Historians.*—The work of this term will deal briefly with the lives and writings of the chief Roman Historians; and illustrative selections will be read in class from Sallust, Livy, and Tacitus. Other portions of these authors will be read privately by the students. (*Required of A. B. students, both semesters, 3 hours.*)

Latin III.—*A Course in Lyric Poetry.*—The Odes and the Ars Poetica of Horace, and selections from Catullus, will be read in class. Especial attention will be paid to the study of the lyric form, and collateral subjects suggested by the text. The student will also read privately selected portions of Ovid, Tibullus, and Propertius. (*Required of A. B. students; both semesters, Junior year, 3 hours.*)

Latin IV*a*.—*A Course in Roman Satire.*—The class work of this term will be devoted to the study of Horace, Juvenal and Persius, with a brief history of the origin and nature of Roman Satire and a study of its influence on the satire of modern times. Private reading will be assigned in both the Latin and the English Satire.

Latin IV*b*.—*A Course in the Roman Drama.*—The Phormio of Terence and the Captives of Plautus will be read in class; and especial attention will be given to the peculiarities of form and syntax and metrical structure exhibited by these authors. The Tragedy of Medea will be studied privately, the work centering in Seneca's tragedy of that name. (*Elective for A. B. Seniors; both semesters, Senior year, 3 hours.*)

GREEK.

(*Elective for A. B. Students.*)

Greek *A*.—*An Elementary Course.*—This course is intended for students who, desiring to take college work in Greek, have not had sufficient preparation to enable them to enter the Freshman class. A Beginners' Greek Book will be studied for the first semester; and two books of Xenophon's Anabasis will be read during the second semester. Proper attention will also be given to the elements of Greek Grammar, and weekly exercises in prose composition will be required during the second semester. (*Both semesters, 5 hours.*)

Greek I.—*An Elementary Course in the Greek Historians.*—The authors read will be Xenophon, Anabasis or Cyropædia, and Herodotus. Two hours per week throughout the year will be

devoted to the class-room study of the original Greek; and the student will read privately the remaining portions of the Cyropædia, and all of Herodotus.

The study of Greek Grammar will be continued throughout the year, and especial attention will be paid to the forms and syntax of Herodotus. Weekly exercises in prose composition will also be required. (*Both semesters, Freshman year, 3 hours.*)

Greek II*a*.—*A Course in Plato, With Especial Reference to the Life of Socrates.*—The class work will be devoted to the study of the Apology, Crito, and Phædo; and the student will read privately in English both those sections of these treatises which are not considered in the class-room and some good biographical studies in the life and work of Socrates, Plato and Aristotle.

Greek II*b*.—*A Course in the Greek Orators.*—Certain selected orations of Lysias, Demosthenes, and Æschines will be read; and informal lectures will be given on Greek Oratory, with especial reference to the lives and work of the authors studied. The student will read privately in English the oration of Æschines against Ctesiphon, and that of Demonsthenes on the Crown.

The study of the Grammar and the weekly exercises in prose composition will continue throughout the year. (*Both semesters, Sophomore year, 3 hours.*)

Greek III.—*A Course in Epic and Lyric Poetry.*—Selected Books of Homer, both Iliad and Odyssey, will be read in class; and the student will read all of one of them privately in some good English translation. Special attention will be paid to questions of metre, form, and syntax and the professor will lecture informally on the outlines of the Homeric question and other topics connected with Homeric study.

The study of Homer will be followed by the study of the fragments of Alcæus, Sappho, and other Greek lyrists; and they will be compared with their Roman imitators, and with modern lyrists. One or more of the simpler odes of Pindar will also be

read. Questions of dialect and metre will be constantly considered. (*Both semesters, Junior year, 3 hours.*)

Greek IV.—*A Course in Greek Drama.*—Selected plays of Æschylus, Sophocles, Euripides, and Aristophanes, will be read. For next year Æschylus' Prometheus, Sophocles' Antigone, Euripides' Medea, and Aristophanes' Frogs will be offered. The origin and History of Greek drama will be treated in a series of lectures; and collateral reading will be assigned on connected subjects, such as The Greek Theatre; Roman Imitators of the Greek Dramatists; Aristophanes Value as a Historian; etc., etc.

A reading knowledge of German is highly desirable for students who wish to take this course. (*Both semesters, Senior year, 3 hours.*)

MATHEMATICS AND ASTRONOMY.

PROF. SCHMIDT.
MR. ————

The work in the Department of Mathematics is planned with a threefold purpose in view:

1. For students who intend to *specialize* in Mathematics it provides the training necessary for pursuing their work. By offering different advanced courses in different years, a comparatively large number of courses is made available. Still it should be remembered that they give a necessarily one-sided sketch rather than a complete picture of modern Mathematics.

2. To those who need Mathematics as an *instrument* it offers opportunities to become familiar with this instrument. The application of the methods of Calculus not only to Physics, Chemistry, Engineering, etc., but even to such seemingly remote realms as Psychology and Political Economy, makes it advisable that this class should continue the study of Mathematics at least as far as Calculus.

3. To others it gives logical training in Analysis and Proof, introduces them to that scientific method par excellence of the Hypothesis, and introduces the idea of a deductive system in its classical form. Elementary (Euclidian) Geometry is studied with this purpose in view by all members of the Freshman class.

The following courses are offered each year:

Mathematics I*a*.—*Solid Geometry.*—(*5 hours during the first semester of the Freshman year.*) Text-book: Phillips and Fisher, Elements of Geometry.

Mathematics I*b*.—*Plane and Spherical Trigonometry.*—(*5 hours during the second semester of the Freshman year.*) Text-book: Wentworth, Trigonometry.

Mathematics II*a*.—*Algebra and Introduction to Infinite Analysis.*—(*5 hours during the first semester of the Sophomore year.*) Text-book: Hall and Knight, College Algebra, supplemented by informal lectures.

Mathematics II*b*.—*Analytic Geometry.*—(*5 hours during the second semester of the Sophomore year.*) Text-book: Tanner and Allen, Analytic Geometry.

Mathematics III.—*Calculus I.*—(*3 or 6 hours through the Junior year.*) Text-books: MacMahon and Snyder, Differential Calculus; Murray, Integral Calculus. This is mainly a lecture course, supplemented by assigned reading and exercises. As it forms the basis for all advanced work in Mathematics, emphasis is laid on vigorous treatment of the fundamental principles rather than on applications.

Of the following advanced courses three at least will be offered each year.

1*a*. *Advanced Calculus with Applications to Geometry.*—(*3 hours during the first semester.*)

1*b*. *Introduction to Differential Equations.*—First course. (*3 hours during the second semester.*)

2. *Introduction to the Theory of Functions.*—First Course. (*3 hours through the year.*)

3*a*. *The Theory of Equations.*—(*3 hours during the first semester.*)

3*b*. *The Theory of Numbers.*—(*3 hours during the second semester.*)

4. *The Theory of Functions of a Complex Variable.*—Second course. (*3 hours through the year.*)

5. *The Theory of Differential Equations.*—Second course. (*3 hours through the year.*)

6. *Modern Algebra. Galois' Theory of Equation.*—(*3 hours through the year.*)

7*a*. *Elliptic Functions.*—(*3 hours through the first semester.*)

7*b*. *Abelian Functions.*—(*3 hours through the second semester.*)

8. *The Theory of Algebraic Functions of One Variable.*—(*3 hours through the year.*)

9. *Mathematical Seminary.*—(*2 hours through the year.*)

For 1905-06 courses 1*a*, 1*b*, 2 and 9 will be offered.

Mathematics IV.—*1a.*—The course on Advanced Calculus with Applications to Geometry will treat of line and surface integrals; of envelopes, contact, curvature and torsion. (*Elective; first semester, Senior year, 3 hours.*)

1b.—The course on Introduction to Differential Equations will treat of some of the most important methods employed in solving Differental Equations. Murray, Differental Equations, will be used for exercises. (*Elective second semester, Senior year, 3 hours.*)

Mathematics V.—*2.*—The course on Introduction to the Theory of Functions will aim to give a general theory rather than a detailed study of various functions. It will treat of numbers, infinite series and products, continuation of a function, conformal representation, with form and periodic functions. (*Elective; both semesters, Senior year, 3 hours.*)

Mathematics VI.—*9.*—The Mathematical Seminary is a Research course. Subject for the year: Number Systems. Dedekind's and G. Cantor's theories will be studied in particular

and the Principles of Critique of Cognition applied to them. (*Elective; both semesters, Senior year, 2 hours.*)

In connection with the Department of Mathematics a course in General Astronomy will be offered, consisting of lectures and recitations with practical exercises. No advanced mathematics is presupposed. Text-book: Young, Manual of Astronomy. (*Elective; both semesters, Junior or Senior year, 3 hours.*)

MECHANICAL ENGINEERING.

PROF. HOCHSTRASSER.
ASSISTANT PROFESSOR COX.

In this department practice and theory go hand in hand. A graduate's value is not based on what he knows, but on what he can do.

The following courses are offered for the coming year:

MECHANICS.

Mechanics I.—*A Course in Kinematics of Machinery.*—In Kinematics the relation of moving parts of machines is investigated. This includes link work, belts, gears, trains of mechanism, etc. The text is supplemented by the use of an extensive collection of models and a thorough course in drawing the various forms of teeth, etc.

On the completion of Kinematics, *Graphic Statics* is taken up. This work is planned with special reference to the requirements of engineering students and the development of the general theory is limited to such principals and methods as are practically useful. (*Required of Engineering students; both semesters, Junior year, 3 hours.*)

Mechanics II.—*A Course in Analytic and Applied Mechanics.*—The various forces in statics and dynamics are studied and a wide range of problems in their practical application to machines is

solved. (*Required of Engineering students; both semesters, Senior year, 5 hours.*)

Mechanics III.—*A Course in strength of Materials and Materials Used in Engineering Structures.*—This will comprise an investigation, in class room and laboratory, of the strength of engineering structures, the analysis of stresses in trusses; bursting strength of boilers, etc., and the mechanical properties and treatment of iron, steel, timber and cements. (*Required of Engineering students; both semesters, Senior year, 3 hours.*)

Steam Engineering.—This course includes the study of *Thermodynamics* and its relation to the gas, gasoline and steam engine; the losses attendant upon the conversion of heat into work and means of partially preventing same; a study of the different valve motions; the practical use of the steam engine indicator; the construction of theoretical cards for compound engines; steam boilers, etc. (*Required of Engineering students; both semesters, Senior year, 4 hours.*)

DRAWING.

The course in Drawing requires four years for completion. Those who enter the sub-freshman class have a preliminary year of free hand lettering and sketching.

During the Freshman year a text-book, "Tracy's Introductory Course," is used, and work with the instruments taken up. The essentials of Descriptive Geometry are clearly brought out and at the same time accuracy and neatness in drawing are required.

During the Sophomore year Machine Drawing is taken up.

In the Junior and Senior years advanced Drawing and Machine Design occupy the student's attention. Both are made to harmonize with the theoretical instruction going on at the same time, and during the Senior year particular stress is laid on Machine design and a large amount of independent investigation is required. (*Required of Engineering students; 4 hours, counting as 2, in Freshman and Sophomore, and 8 hours, counting as 4, in Junior and Senior years; both semesters in all classes.*)

Shop Work.—A systematic course of practical work, including carpentry, wood-turning, pattern making, moulding, foundry work, blacksmithing, bench work in iron, and machine work, is required of Mechanical Engineering students. No attempt is made to teach a trade, in any sense of the word; the time afforded would not permit of this, but each lesson is intended to bring out some one of the underlying principles of the subject taught and impress it firmly on the student's mind, so that when he has completed the course he will have a general knowledge of those trades with which the engineer has to deal.

A series of lectures is given as the work progresses, and a certain amount of reading of technical and trade publications is required.

Shop Equipment.—The wood shop is provided with twenty benches and forty sets of tools for bench work in wood, a rip saw, band saw, jig saw, planer, grindstone, fourteen wood lathes and a number of small foot-power machines. The foundry is equipped with sets of moulding tools, benches, flasks, moulding sand, etc. A brass furnace is in place, and a cupola for melting iron has recently been installed. The tin shop is provided with gas furnaces and soldering irons for students, and is well supplied with snips, stakes, flangers, and blowpipes. The blacksmith shop contains power blast forges, and one hand forge, heavy anvils, sledges, hammers, tongs, fullers, swages, etc. The machine shop has an 18-inch Cady and an 11-inch Seneca Falls lathe, a drill press, emery wheel, grindstone, and a Gray planer. A No. 1 B. & S. Universal milling machine and a Springfield shaper together with a small Barnes lathe, a complete airbrake equipment, and the usual benches and vices for iron work complete the list of the larger tools.

Power is furnished by a Babcock and Wilcox boiler in connection with an automatic cut-off high speed engine. (*Required of Engineering students, 8 hours, counting as 4, throughout the four years' course.*)

PHILOSOPHY.

PROF. YOCUM.

Philosophy I.—*General Psychology.*—Following Ladd's Outlines and James' Shorter Course. (*3 hours, both semesters, Junior or Senior year.*)

Philosophy II*a*.—*Logic.*—Discussion of Concepts, and Judgments with Deductive and Inductive Syllogism. Analysis of Argumentative Discourses. (*3 hours, first semester, Junior or Senior year.*)

Philosophy II*b*.—*Ethics.*—Psychology of the Will and Outline of Practical Ethics. (*3 hours, second semester, Junior or Senior year.*)

PHYSICS.

PROF. BENTON.

Instruction in Physics is given by (1) recitations, based upon lessons assigned in text-books; (2) laboratory work, in which the student uses his own direct observation to gain knowledge of the subject; (3) lectures, in which experimental demonstrations of the principles under discussion are given; and (4) seminar work in the advanced courses, in which the various members of the class take up different special problems requiring extended study or investigation, and report upon them in turn to the class.

Physics I.—This is a course in general physics, consisting of lectures, demonstrations, and recitations. The student is required to take notes, which must be re-written, and passed in for inspection at the end of every month.

The subject will be taken up in the following order:

Elementary Trigonometric Conceptions.—Functions of angles, calculations of right-triangles, use of logarithmic and trigonometric tables.

Mechanics.—Physical quantities and their measurement, simple types of motion; work and energy, mechanics of a rigid body, elasticity, mechanics of fluids, surface tension.

Heat.—Thermometry, expansion, calorimetry, change of state, solutions, transference of heat, thermodynamics, kinetic theory of gases.

Electricity.—Electrification, the electric field, electrostatic instruments, the electric discharge, magnetism, the electric current, the electro-magnetic field, galvanometry, relations between heat and electricity, dimensions and units of electric quantities, induction of currents, telegraph and telephone, passage of electricity through gases, electric waves.

Sound.—Waves, sounds and their relations, propagation of sound waves, sonorous bodies, compound tones, musical instruments.

Light.—Nature and propagation of light, reflection and refraction, elementary theory of optical instruments, interference, dispersion, maximum efficiency of optical instruments, optical phenomena of the atmosphere, radiation and absorption of light waves, sensation of color, polarization.

General Physics, by Hastings and Beach, is used as a reference text. Each student is required to provide himself with logarithmic and trigonometric tables.

This course presupposes a thorough working knowledge of algebra. (*Required of all students; both semesters, Freshman year, 3 hours.*)

Physics II.—This is a laboratory course. The work is as far as possible of a quantitative nature. Great stress is placed on exact measurements and on care in recording results. The student is required to record his observations in a temporary note-book; these observations, with calculations and deductions, are written up on perforated sheets which are passed in at the end of each week; these are bound between covers and form the permanent note-book.

Among the experiments given are coefficient of friction, principles of moments, laws of falling bodies, specific density of solids and liquids, laws of the pendulum, velocity of sound, determination of pitch by sonometer, specific heat, latent heat, coefficient of expansion, index of refraction, focal length of lenses, measurement of resistance, current and potential, magnetic moment, tangent galvanometer, etc. (*Required of B. S. students; both semesters, Freshman year, 2 hours.*)

Physics III.—*Mechanics and Acoustics.*—The work in mechanics in this course is designed to cover those parts of the subject which are of purely scientific rather than of practical interest, and thus includes a different field from the course in applied mechanics. Such subjects are taken up as the general properties of matter, kinetic theory of matter, viscosity, capillarity, theory of vibrations. Lectures; recitations, laboratory work. (*Required of Engineering students; elective other courses; both semesters, Junior year, 3 hours.*)

Physics IV.—*Advanced Courses in Physics.*—All of the advanced courses in physics presuppose the completion of the course in general physics, and all except the advanced experimental physics require a knowledge of calculus. (*All are arranged to extend through two semesters, and to require three hours per week of class room work, or six hours of laboratory work. These courses are Junior or Senior electives, and one or more will be offered each year.*)

Advanced Experimental Physics.—Continuation of the laboratory work of the course in general physics, including further instruction in the use of physical instruments, practice in laboratory manipulation, design of apparatus, and the performance of experiments not provided for in the first year course. (*Laboratory work only.*)

General Mathematical Physics.—Mathematical theories of the various branches of physics; differential equations of mathematical physics; use of Fourier's series. (*Lectures, recitations, seminar work.*)

Heat.—General theory of heat; conduction, radiation; properties of gases and vapors; hygrometry; measurement of high and low temperatures; theory of thermodynamics. (*Lectures, recitations, laboratory.*)

Optics.—Experimental work in dispersion, diffraction, interference, polarization; crystal optics, magneto-optics; design of optical instruments. (*Lectures, recitations, laboratory.*)

Electricity and Magnetism.—This course is intended to include primarily those parts of the subject which are of purely scientific interest; the applications of electricity being covered in the courses in electrical engineering. It includes work in static electricity; primary cells and electro-chemistry; conduction of electricity in gases; Röntgen rays; electric vibrations; general mathematical theory of electricity and magnetism.

ROMANCE LANGUAGES.

PROF. CROW.

The Romance courses are based upon the belief that a good reading knowledge of the languages for practical and cultural purposes is the main desideratum for the majority of students and that it is practically impossible for one to become a fluent linguist except through a more constant and continuous contact with the spoken language than is possible in an ordinary college course. The intention is, therefore, to make these studies serve a threefold purpose—to give the student the power to read the written language with ease and rapidity, to broaden his mind by stores of information and culture from other languages than his own, and to train his intellect by means of the mental discipline afforded in such studies. To those, however, who desire to acquire familiarity with the spoken languages, electives for this purpose are offered.

French *A.—Elementary Course.*—Convinced that neither by induction nor by deduction alone is a language most easily learned, we have made the first year's course in French a combination of the two methods, beginning the translation of an easy text almost simultaneously with the study of the grammar. In this way the student sees in his every day contact with the language a verification of the principles he learns from the grammar. French *A*, therefore, not only familiarizes the student with the essentials of grammar, but imparts a certain facility in translating English into French and acquaints him with several French productions of literary merit. The following texts are read in class: Halévy's "L'Abbe Constantin," Chateubriand's "Les Aventures du Dernier Abencerage" and Dumas' Monte-Cristo." (*For students unprepared for French I; both semesters, 5 hours.*)

French I.—Such review of the verb as is seen to be necessary is directed to be taken outside of the class. The pronunciation is perfected by reading the French in the original before translating. The course embraces the following works: Erckmann-Chatrian's "Le Conscrit de 1813," Feuillet's "Le Roman d'un Jeune Homme Pauvre," Dumas' "Le Chateau d' If," Hugo's "Hernani," Canfield's "French Lyrics" consisting of 230 poems by 60 poets. (*Alternate elective with German I for B. S. students and with Greek I for A. B. students; both semesters, Freshman year, 3 hours.*)

French II.—This course is open only to those who have satisfactorily completed I. Students entering French II are supposed to read with ease any ordinary French text. Its aim, therefore, while seeking to impart greater facility in reading the more difficult authors, is to afford opportunity for studying the language as a literature in its various and distinct forms. Lectures are given on the origin and development of the French drama. (*Alternate elective with German II for B. S. students, and with Greek II for A. B. students both semesters, Sophomore year, 3 hours.*)

French III.—*Old French.*—Just as the study of Anglo-Saxon is necessary to a thorough mastery of the English tongue, so Old French is essential to a full understanding of the modern language. The French of the Middle Ages is the bridge over which the Latin element in modern French has come. While it is not essential for ordinary reading purposes, it is indispensable to a liberal understanding of the language in its historical development. Besides translating many authors of the eleventh, twelfth, and thirteenth centuries, lectures are given showing the changes that words in modern French have undergone. Course III is expected to follow II. (*Elective; both semesters, Junior or Senior year, 3 hours.*)

Spanish.—On account of our proximity to Cuba and other Latin-American countries, it has been deemed wise to offer a year's work in Spanish. A thorough drill in the pronunciation and grammar with exercises in turning Spanish into English and English into Spanish is followed by the translation of an easy text. These texts are gradually increased in difficulty and length, and the student is expected to read ordinary Spanish with ease by the end of the course. Especial stress is laid upon the accumulation of a large vocabulary, and upon sight reading. (*Elective; both semesters, Junior or Senior year, 3 hours.*)

Italian.—To students desiring to specialize in the Romance Languages, an elementary course in Italian is offered. As students who elect this course will already have had some knowledge of Latin and French, Bowen's Italian Reader and Grandgent's Italian Grammar are begun simultaneously and a rapid mastery of the forms and ability to translate easy passages of prose is acquired in the first semester. In the second, annotated texts are first read and then Il Romanzo d' un Maestro by De Amicis in an Italian edition. Prose composition and private reading are also given. (*Elective; both semesters, Junior or Senior year, 3 hours.*)

VETERINARY SCIENCE.

PROF. ————.

The work in this subject consists of recitations, lectures, and laboratory exercises in physiology, materia-medica, bacteriology, and clinics upon the diseases of animals.

Intending medical, veterinary, dental and pharmacy students will find the course a great aid in pursuing a more comprehensive study of the above subjects later, it being practically a preliminary medical course.

Physiology.—This course consists of recitations and practical laboratory work in studying the microscopic structure of the tissues, in demonstrating the conductivity of nerve and contractility of muscle, special stress being laid upon respiration, digestion and absorption, circulation of the blood, and the nervous system. (*Required in Natural History and Chemical courses, elective in Mathematical course, Sophomore year; required of Agricultural course, Senior year; Junior and Senior elective in A. B. course; first semester, 3 hours.*)

Materia Medica.—Owing to time limitations only the most important drugs can be studied.

The department's pharmacy is stocked with all the drugs in common use, and these with a few more uncommon preparations are exhibited to practically familiarize the student with their physical characters. (*Elective in Chemical course; second semester, Senior year, 3 hours.*)

Bacteriology I and II.—These courses consist almost entirely of practical work in the bacteriological laboratory, which is well equipped. The student is taught to prepare culture media, the actual setting and regulation of thermostats, the use of the bacteriological microscope in measuring, observing mobility, sporulation, staining, mounting, etc.

Students are required to cultivate and diagnose certain typical forms, not only by means of their cultural characters but by a study of their pathogenesis and their subsequent isolation from the bodies of animals. (*I elective in Science courses, Sophomore year; required in Agricultural courses, Senior year; second semester, 3 hours. II required in Natural History and Chemical courses; first semester, 5 hours.*)

Veterinary Diseases I and II.—These courses consist of clinics upon cases occurring in the practice of the department, the object being to familiarize the student with the symptoms exhibited by sick animals and the proper remedies for the condition. The department is well equipped with all the latest improved instruments, and the mechanism and use of these are fully explained. Students are required to act as assistants in all procedures. (*Required in Agricultural courses; I second semester, Junior year, 5 hours; II second semester, Senior year, 2 hours.*)

ZOOLOGY AND GEOLOGY.

PROF. SELLARDS.

Zoology I.—A course in the general principles of Zoology. Laboratory study of selected types, and class work with text. (*Required of Sophomores of Natural History, Agricultural and Chemical courses; elective for Juniors of the Mathematical course and for Juniors and Seniors of the A. B. course; first semester, 5 hours.*)

Zoology II.—*Entomology.*—The course in Entomology follows course I in zoology. Careful attention is given to the structure of insects in general, after which the insect orders are considered, the student being expected to recognize the various orders and the more common families. Emphasis is given to the economic side of entomology and particularly to the injurious insects of Florida and their remedies. (*Elective to Sophomores of the Natural*

History, Chemical and Mathematical courses; required of Sophomores of Agricultural course; elective to Juniors and Seniors of the A. B. course; second semester, 3 hours.)

Zoology III.—*Comparative Study of the structure of Animals.*—Following and continuing the general course taken in the Sophomore year. (*Required of Seniors of the Natural History and Agricultural courses; elective to Seniors of the A. B. course who have taken Zoology I; first semester, 5 hours.*)

Geology I.—*A Course in the General Principles of Geology.*—Scott's text-book of Geology is used. Four hours class and one hour of laboratory work. Attention is given in the laboratory to the principal types of rocks, and to the more common fossils. Students who select this course are expected to be able to take occasional Saturday excursions. (*Required of students of the Natural History, Chemical and Agricultural courses; elective to students of the Mathematical course, and to Juniors and Seniors of the A. B. courses; first semester, 5 hours.*)

Geology II.—*Mineralogy.*—Moses and Parsons' Mineralogy. Class work on the general character of minerals including the elements of crystalography. Laboratory determination of minerals. Five hours second term. (*Required of students of the Natural History and Chemical courses; elective to students of the Mathematical and to Juniors and Seniors of the A. B. courses; second semester, 5 hours.*)

Geology III.—*Historical Geology.*—Text and laboratory work.—The geological history and development of continental areas. The geological history and development of life. (*Required of Seniors of the Natural History course and elective to Seniors of the A. B. course who have the necessary preparation; second semester, 4 hours.*)

Biological Research.—Students who desire to continue work in Zoology, Entomology, or Geology, will be assigned special problems, or allowed to select particular lines of investigation in one of these subjects. (*Required of Seniors, Natural History course, who select one of these subjects as major; both semesters, Senior year.*)

Laboratory.—The department is provided with a well lighted, comfortable laboratory, equipped for the courses offered. The United States Geological Survey Educational Series of rocks is accessible for the use of students of geology. For students of mineralogy there is provided a blowpipe collection of one hundred selected mineral species; an accessory blowpipe collection of miscellaneous minerals; a crystal collection of fifty natural crystals; and a reference collection of choice mineral specimens. Historical Geology students are provided with a collection of fossils illustrating the distribution and development of organisms. Opportunity is offered for research along certain lines. The State is exceptionally rich in entomological and zoological problems. Field work in geology will be arranged whenever possible. The department library, office, and room for use of advanced students adjoins the laboratory.

Museum.—The University museum occupies the third floor of Science Hall. The mineralogy collections are at the south end, and consist of a representative collection of minerals with some choice specimens. The geological collections are arranged according to biological groups. Within the group the arrangement is according to geological occurrence. The zoological material is grouped at the north end of the museum.

DEPARTMENT OF MILITARY SCIENCE.

CAPT. TAYLOR.

The law establishing the land grant institutions provides that instruction in military science and tactics shall be a part of the course of studies maintained. By this wise provision the nation will always be supplied with intelligent and educated officers, should any unhappy differences with other nations make it necessary to call out the militia in large numbers.

Not only does this legal obligation exist, but it has been shown by experience that military drill promotes physical development, and that it leads to promptness in the discharge of all duties.

It teaches young men how to command others, a quality necessary to success in every pursuit in life.

All able-bodied students, except senior privates and normal students, are required to take the military instruction and the drill. Hereafter, proficiency in military science will be requisite for promotion from one class to the next higher, and is made a condition for graduation.

Those excused from military drill on account of physical disability, or for other causes, will be required to utilize the time for other work to be assigned them at the discretion of the President upon the recommendation of the Commandant of Cadets.

As far as possible and consistent with the best interests of discipline and the good of the institution, commissioned officers will be selected from the Senior and Junior classes, and non-commissioned officers from the Sophomore and Freshman classes.

The department is supplied by the Government with 150 cadet rifles and equipments, and a sufficient allowance of ammunition for thorough instruction in the course which is given below.

By the generosity of the citizens of Lake City, a silver cup has been provided, which is to remain in the possession of the best drilled company, as determined by the competitive drill during commencement week.

A gold medal is given by the Commandant for individual competitive drill and two medals for the highest averages during target pratice.

The military department is a separate department and students are under military discipline only during the performance of purely military duties.

Breaches of military discipline are punished by confinement in study hall during recreation hours, confinement to rooms when not attending university duties, confinement to the campus, and in serious cases by demerits and extra tours. Students during confinement who apply themselves do a great deal of studying they would not do if permitted to visit the city or loaf around the campus.

Students must provide themselves with the regulation uniform. The expense will not exceed $15 for privates. The uniform is durable and neat, and will be found as economical as any clothing that can be provided. If care is taken one suit will be ample for the year, as they are only required to be worn when attending military duty.

The military duties generally will not occupy more than three hours per week, and are so arranged as to facilitate the advancement of the students in other studies and not interfere with any class room work. The time consumed in drill for the year 1905-6, and thereafter until further notice, will be two hours per week, distributed as follows:

Tuesday, 7:20 A. M., regular drill.....30 minutes.
Wednesday, 7:20 A. M., guard mounting..30 minutes.
Thursday, 7:20 A. M. regular drill.....30 minutes.
Friday, 4:15 P. M., dress parade.....30 minutes.

There will be no military exercises on Monday or on Friday morning.

Instruction.—The course of military instruction is as follows:

First Semester.—Theoretical and practical instruction in the school of the soldier and of the company in close and extended order; company and battalion inspection; dress parades; reviews; guard mounting and posting of sentinels; escort of the colors.

Second Semester.—Theoretical and practical instruction in the school of the battalion, artillery drill, and battalion ceremonies.

Sighting and position aiming drills, and target practice at the different ranges, 100, 200 and 300 yards. Each Cadet will

be required to fire not less than the regular number (50) of shots under the direction of an officer or non-commissioned officer of his company.

The study of the Articles of War and the preparation of certain records which shows how the soldier enters and leaves the service, how he is accounted for, paid, fed, clothed, and armed, and how his military duties are regulated.

The members of the Freshman Class will be required to study and recite upon the Drill Regulations during the *second semester.*

Officers and non-commissioned officers will be required to perfect themselves in the Drill Regulations.

Lectures will be given by the Commandant from time to time on military subjects having reference to such matters as the organization of the United States Army including volunteers and militia; patrols and out-posts; marches; camp and camp hygiene; attack and defence of advance and rear guards and out-posts, and convoys; lines and bases of operations.

Any students who desire may take a course in military subjects such as Ordnance and Gunnery, International Law, Military Science, Military Law, and Field Engineering.

Vacancies in the grade of second lieutenant in the army existing on July 1 in each year, after that year's graduates of the military academy have been commissioned, may be filled by appointment, in the following order: (1) of enlisted men of the Army, whose fitness for advancement shall have been determined by competitive examination; (2) from civil life.

This provision makes it possible for anyone under 30 years of age, unmarried, physically sound, and of good moral character, to enlist in the Army, and after two years' service take a competitive examination for appointment as 2nd Lieutenant.

DEPARTMENT OF PHYSICAL CULTURE.

MR. ————

The Flagler gymnasium affords splendid opportunities for physical development. The equipment is of the best and latest design and consists of vaulting horse, buck, horizontal and parallel bars, rowing machines, vaulting bar, chest machines, sculling, wrist, and finger machines, traveling rings, flying rings, Indian clubs, dumb bells, etc., also a goodly number of well padded mats.

The main floor is 40x80 feet with a suspended running track which is also used as a spectators' gallery. In the basement are the dressing rooms, lockers, lavatories, shower baths, boiler-room, and a large swimming pool.

The gymnasium work is planned by the instructor. The work is based upon the idea that all-around development is preferable to the development of any particular set of muscles. Physical defects will be corrected by special individual exercises as far as possible. Measurements will be taken of students at the beginning of each school year and work prescribed. At the end of the year they will be remeasured and results noted.

In addition to the gymnasium work such sports as football, baseball, basketball, tennis, track and field athletics are encouraged on the ground that manly competition in pure athletics tends in a great degree to elevate the standard of morality and self-respect among the student body. A committee of the faculty co-operate with the students in this work.

The gymnasium work will be required of all students below the Junior class unless excused by the President.

DEPARTMENT OF PHARMACY.

The University proposes to offer a two years' course in Pharmacy, beginning in the Fall of 1906, which shall lead to the degree of Ph. G. Candidates for admission to this course will be required to pass a satisfactory examination in General Chemistry, Latin, and the ordinary English branches, viz.: Arithmetic to and including compound and decimal fractions and proportion, American history, geography (general), reading, writing and spelling. A High School diploma or one of equal standing will be accepted in place of the above examinations on all subjects except Chemistry. Students of the University of Florida who graduate in an elective course of Chemistry will be admitted, without further examination, to the Senior year of the school.

The course of instruction will include the subjects of general, pharmaceutical, analytical and organic chemistry, toxicology, pharmaceutical physics, materia medica, botany, microscopy and the theory and practice of pharmacy, with laboratory work in each department.

Every person upon whom the degree of Ph. G. of this school shall be conferred, must be of good moral character, must have attained the age of 21 years, must have had at least two years' experience in a dispensing store (not necessarily continuous and which may be filled before, during, or after the school course), and must have passed all of the examinations of the school with an average of at least 70 per cent. and have completed a thesis under the direction of, and satisfactory to, the head of one of the departments.

The studies of the Junior year will include chemistry, general, organic, analytical and pharmaceutical, materia medica and botany, bacteriology, with laboratory work in each branch.

The studies of the Senior year will embrace chemistry, pharmaceutical and toxicological, pharmacy, theoretical and

practical, and materia medica with laboratory work in each branch.

GENERAL OUTLINE OF THE PROPOSED COURSES.

Chemistry.—*General Chemistry.*—Class-room instruction with particular attention to chemical compounds in relation to the pharmacopœia, their manufacture and commercial impurities.

Laboratory work in analytical chemistry with drill in detection of impurities, incompatibilities, etc.

Organic Chemistry.—Lectures covering as much of descriptive and theoretical organic chemistry as is necessary for a complete understanding of the important organic compounds used in pharmacy.

Laboratory practice which will consist of work upon the physical properties of organic compounds, qualitative tests, tests of purity, the separation and tests of identity of the common alkaloids, the assaying of the important drugs, as opium, cinchona, nux vomica, etc.

Pharmaceutical Chemistry.—Lectures and laboratory work on the manufacture and purification of inorganic and organic drugs, tests for their commercial impurities, incompatibilities, etc.

Toxicology.—Thorough and careful drill on the poisons and tests for the same in drugs and foods and their antidotes.

Materia Medica and Botany.—The work of the Junior year will embrace the study of systematic botany with particular attention to those families which yield the more important drugs, with microscopic work on vegetable histology with particular attention to the different tissues and the microscopic identification of impurities in vegetable drugs. In the Senior year the work in materia medica will embrace the official vegetable and animal drugs with special reference to identification, physical properties, trade values, etc. Also serum therapy, antitoxines, vaccine, etc.

Bacteriology.—The course will embrace the preparation and use of the various culture media and the study of the properties and identification of the pathogenic bacteria, by lectures, demonstrations and laboratory work, completed in the Junior year.

Pharmacy.—*Pharmaceutical Physics.*—Weights and measures, specific gravity, heat and its application to evaporation and distillation, drug grinding and milling, solution, crystallization, filtration, clarifying and decolorizing, maceration, percolation, etc.

Laboratory work in the first term will embrace abundant practice in the compounding of typical prescriptions, overcoming incompatibilities and the putting up of presentable compounds.

Practice will be given in the various pharmaceutical manipulations, as of making medicated waters, syrups, tinctures, extracts, fluid extracts, infusions, decoctions, etc., also the compounding of prescriptions involving the making of pills, tablet triturates, suppositories, ointments, cerates, emulsions, mixtures, liniments, powders, capsules, wafers, troches, etc. Exercises in estimating the comparative cost of preparations. Instruction will be given in technical formulas and new preparations. It will include also a short course of instruction in regard to the handling, preservation, display, etc., of other goods besides drugs, generally carried by a dispensing store, as rubber and celluloid goods sponges, perfumes, etc.

NORMAL DEPARTMENT.

FACULTY.

ANDREW SLEDD, Ph. D., LL. D.,
President.

HENRY EASTMAN BENNETT, A. B.,

Dean; Psychology, Pedagogy, Etc.

Florida Agricultural College, 1890-91; Teacher, 1891-94; Graduate, Peabody Normal College, 1896; Principal, Nassau Co. High School, 1896-97; Teacher of History and English, State Normal College, 1897; Teacher of Mathematics and Latin, Florida State Normal School, 1897-1900; Secretary, State Educational Department, 1900-03; Principal, State Normal School, 1903-05; present position, 1905—.

W. F. YOCUM, A. M., D. D.,

Latin and Literature.

W. S. CAWTHON, A. B.,

Mathematics.

Graduate, Florida State Normal School, 1890; Teacher, 1891-92 and 1893-99; Student, Southern University, 1892-93; Teacher of Mathematics, Florida State Normal School, 1900-05; Student, University of Chicago, Summer Quarters, 1901-05; A. B., University of Chicago, 1905; present position, 1905—.

W. L. FLOYD, B. S.,

English and Science.

B. S., South Carolina Military Academy, 1886; Principal, Clio School, 1888-89; Principal, Cyprus High School, 1889-92; Instructor in English, East Florida Seminary, 1892-96; Graduate Student, Harvard University, 1902-03; Professor of Natural Sciences, East Florida Seminary, 1896-1905; present position, 1905—.

GEO. M. LYNCH, A. B.,

Geography, History and Civics.

A. B., East Florida Seminary, 1891; Professor of History and Civics, East Florida Seminary, 1897-99; Professor of Mathematics, East Florida Seminary, 1899-1905; Assistant Commandant, East Florida Seminary, 1900-05; President, Florida Teachers' Association, 1904; present position, 1905—.

PURPOSE AND SCOPE OF THE NORMAL DEPARTMENT.

Upon the abolishment of the State Normal School at De-Funiak Springs by the Buckman Law, provision was made for the training of male teachers by the establishment of a Normal Department at the University of Florida and similarly for female teachers at the Florida Female College.

This division of Normal work enables this Department of the University to devote itself to the training and instruction of those men who may reasonably be expected to fill the important public school positions of the State. From this Department the majority of future county superintendents, graded school principals, and high school teachers and principals may well be drawn.

The demand for young men for such positions is far beyond the supply and is increasing constantly. Salaries are rapidly advancing and with the increasing taxable property in the State and the liberal aid now given to all grades of schools by the State Government, this field of work is becoming profitable. In respect to its nobility, usefulness, honor, and social and intellectual standing the profession of teaching may already be said to be second to none. Young men of ability, good character, pure lives and unselfish ambitions may turn to this work as offering splendid opportunities for successful careers.

The improvement of rural life is one of the most intense living problems of the South. The country school is looked to as the means and center of this improvement. Young men of rural interests and inclinations or whose opportunities have not permitted their preparing for more remunerative work, will find that they can make no investment which will return greater pleasure and profit to themselves or put them in a better position

to be useful, distinguished and honored among their fellow citizens than in a Normal course preparing them for conducting model rural schools.

The Normal Department will seek to prepare specially trained teachers for every grade of public school work for which men are naturally adapted. Through these young men and otherwise it will undertake practical, original studies of the conditions and needs of popular education in this State. By the most thorough and effective preparation of its students it will aim to be a strong factor in advancing the dignity and compensation of the teaching profession, and to contribute appreciably to the betterment of social and economic conditions in the State.

Throughout all the courses offered in this Department it will be the aim of each instructor to make clear the function of his subject in a school curriculum. A teacher should not be permitted to regard the teaching of any subject as an end in itself, but its real relations to the pupil's life activities and its vital correlations with other studies are of prime importance in preparing him to teach it effectively.

Owing to the entrance requirements both as to scholarship and as to age the work of the Normal Department will be considerably higher than that of regular Senior High Schools. The Three-Year Normal Course will, with slight exceptions, be the equal in academic advancement of a high-school course, and will include a good professional course in addition thereto. More time is given to perfecting the knowledge of common school subjects, the aim being to offer the less essential subjects as electives to be taken in the University classes. The greater maturity of the average Normal student and his usually more studious disposition make it feasible to shorten some courses while making them even more thorough than would be possible in a high-school were the facilities and corps of instructors fully equal.

Students desiring to fit themselves for entrance into the University and not expecting to teach, may secure special permission to substitute additional academic work for most of the professional studies of the first two years of the Normal Course.

COURSES OF STUDY.

The division of Normal School work renders practicable certain economies in the courses offered to prospective teachers. The Kindergarten and Primary Teachers' Training Classes are naturally left entirely to the Normal Department of the Female College, while the superior facilities offered by the University render unnecessary as extensive courses in the languages, sciences and some other subjects as were given at the State Normal.

THREE-YEAR NORMAL COURSE.—With the elimination of collegiate and primary professional work a three-year course has been provided, which is equal in character to that offered by almost any Normal School in the country, North, South, East or West. Satisfactory graduates of this course will be well fitted for teaching in any of the grammar or Junior High School grades and for rural school teaching.

GRADUATES' PROFESSIONAL COURSE.—A one-year course of special professional study and training is offered to graduates of colleges, high schools or our Three-Year Normal Course. This course will prepare for any grade of high school teaching. The course is entirely elective, under direction of the Dean of the Department, in order to provide for the needs of individuals as determined both by their previous preparation and by the class of teaching which they propose to undertake. Prospective principals and superintendents will be expected to specialize largely along the lines of school laws, organization, management, etc.; those who expect rather to be high school teachers may specialize in particular branches, as ancient languages, modern languages, sciences or history, in connection with appropriate pedagogical subjects, while high-school graduates who have had neither Normal nor collegiate instruction will devote themselves primarily to the professional work of the Three-Year Normal Course.

COMMON SCHOOL TEACHERS' COURSE.—As the great majority of rural schools are and for many years will continue to be taught by second and third grade teachers, it is thought that the Normal instruction offered by the State should not be denied to these. Since well educated teachers cannot be secured for a large proportion of the schools, it is far better that those who do teach them should have some special training than have none. To meet this need a Common School Teachers' Course is organized which will review the common school subjects from the teacher's standpoint and afford as much as possible, in the way of theory and practice of education, observation of model methods and insight into the true meaning and spirit of elementary education. The aim of this course is to improve the rural school conditions, to bring these schools into vital touch with their environment, to let them enter helpfully into the real problems of rural life, and to make the teacher and school a center of interest and a vital force in community betterment.

CONSPECTUS OF NORMAL COURSE.

The numerals after each subject indicate the number of hours recitation per week during the term.

The Fall Term is twelve weeks, and the Winter and Spring Terms eleven weeks each, including Commencement.

COMMON SCHOOL TEACHERS' COURSE.

Fall Term.	
Arithmetic, 5.	Reading, 3.
Grammar, 2.	United States History, 4.
Composition, 3.	Political Geography, 3.
Orthography and Orthoepy, 2.	Drawing and Manual Training, 4.
Winter Term.	
Arithmetic, 5.	Reading, 3.
Grammar, 2.	United States History, 4.
Composition, 3.	Political Geography, 3.
Orthography and Orthoepy, 2.	Drawing and Manual Training, 4.

Spring Term.

Arithmetic, 3.
Grammar, 2.
Composition, 3.
Reading 3.
Theory and Practice of Teaching, 4.
Florida History and Government, 4.
Physiology, 3.
Nature Study, 3.
Singing, 2.

THREE YEAR NORMAL COURSE.

FIRST YEAR.

Fall Term.

Arithmetic, 5.
Composition, 3.
Literature, 1.
Latin, 4.
Civil Government of United States, 4.
Art of Teaching, 4.
Singing, 2.

Winter Term.

Algebra, 5.
Composition, 3.
Literature, 1.
Latin, 4.
Physical Geography, 3.
Art of Teaching, 3.
Practice School Observation and Teaching, 2.
Drawing and Manual Training, 4.

Spring Term.

Algebra, 5.
Grammar, 5.
Elements of Agriculture, 2.
Physical Geography, 3.
Practice School Observation and Teaching, 2.
Literature, 1.
Latin, 4.
Nature Study, 3.

SECOND YEAR.

Fall Term.

Algebra, 5.
Rhetoric, 4.
Latin Reading and Composition, 3.
General History, 3.
Biology, 3.
Psychology, 3.
Drawing and Manual Training, 4.

Winter Term.

Geometry, 4.
Rhetoric, 4.
Cæsar and Latin Composition, 3.
General History, 3.
Biology, 3.
Psychology, 3.
Elective, 3.

Spring Term.

Geometry, 4.
Rhetoric and Theme Writing, 4.
Oratory, 1.
Cæsar and Latin Composition, 3.
General History, 3.
Botany, 3.
Psychology, 3.
Elective, 2.

THIRD YEAR.

Fall Term.

Geometry, 4.
Literature, 3.
Vergil, 3.
Physics, 3.
School Management, 3.
United States History, 3.
Practice Teaching, –.
Elective, –.

Winter Term.

Trigonometry, 4.
Literature, 3.
Vergil, 3.
Physics, 3.
History of Education, 3.
United States History, 3.
Practice Teaching, –.
Drawing and Manual Training, or
Elective, –.

Spring Term.

Arithmetic, 4.
Literature, 3.
Vergil, 3.
History of Education, 3.
Grammar and Composition, 3.
Geography, 3.
Practice Teaching, –.
Drawing and Manual Training, or
Elective, –.

DESCRIPTION OF COURSES.

SCIENCE AND ART OF TEACHING.

MR. BENNETT AND ————.

Throughout the Normal Course instruction is given in the various sciences of education and their practical application. It is aimed to bring the students, as early as practicable, abreast of the times in both educational theory and practice. A Normal School should, moreover, be "an educational experiment station." Hence a broad basis of the philosophy of teaching and study of existing conditions are made, in order to afford that power and originality which will make our students not merely imitators in thought and practice.

Art of Teaching.—In the first year a foundation is laid in a careful study of the essential principles of the art of teaching. The central aim of this class is to bring the students to appreciate thoroughly that all real learning consists in the activity of the pupil, and, hence, real teaching consists in causing appropriate activities on the part of the pupils. After a reasonable mastery of the fundamental principles has been secured, the class studies their practical application in methods of teaching the several common school subjects, and so much of the elements of school management as is necessary to make clear the principles involved, and to inspire students with a due appreciation of and love for the splendid work in which they are engaging.

School Management is studied during the first term of the third year. The aim of this course is to familiarize students with the best methods and devices for the management of schools, and

to imbue them thoroughly with the ideals and spirit which will make their management of the schools under their charge contribute most largely to the development of character in their pupils. The care of grounds and buildings, the beautifying of rooms and premises, heating, lighting, ventilation, principles and methods of discipline, punishments, rewards, and all those many and vital questions that arise in the teacher's work—aside from those directly appertaining to instruction—are studied in a practical, vital way as thoroughly as the time will permit.

The central thought of this course is that the school is managed with the development of the pupil's character as the highest aim.

School Organization.—In the study of school organization which follows the preceding, the larger phases of school management are studied. The arrangement of courses, preparation of programmes, gradations, promotions, records, reports, the supervision and direction of school work and administration, and all those problems which are met by principals of small and large schools are studied.

School Laws and Systems.—It is the aim of this course to make our students familiar with the working of the school system of which they are to become a part, the laws of the State bearing upon public education, the duties and functions of the teachers and each officer, the rights and obligations of patrons patrons and pupils, the laws pertaining to taxation and control, and the principles underlying the same, with the practical operation of these laws and principles. The Florida school system is compared with that of other States, and its strong and weak points dwelt upon. Students are led to suggest remedies for existing evils and extension of present benefits.

It has been well said that "the greatest need of the South is educational statesmen." The Normal Department can in no way better repay the State for its maintenance than in the preparation

of some of her strongest young men with the truest ideals in education, and such thoroughly developed knowledge of the best and basic principles that they may become "educational statesmen."

MODEL AND PRACTICE TEACHING.

————————, CRITIC TEACHER.

Model lessons are conducted to illustrate the most approved methods of teaching and the practical application of the class work in pedagogy. The classes accompanied by the instructor observe this work carefully, making ample notes the while. After each observation lesson it is fully discussed by the class. The purpose and effect of each detail is brought out, and all is thoroughly correlated with the classroom study. After full discussion the students are required to write their observations and conclusions in permanent note-books which are criticized and graded by the instructor.

The language of educational theory has but little meaning to one who cannot translate it into terms of child life. One who has studied educational problems only in their theoretic abstractions finds, in the actual processes of teaching, problems which are new to him and which are well-nigh insuperable until he has found the connection between real teaching and the written accounts of it. Practice teaching is the essential means by which the theories of educational study in the class room are plumbed.

Many a teacher has no professional mirror in which he can see himself as he appears to others. He grows in his errors or peculiarities until he wonders why he is rejected by Boards and Superintendents. He finds himself a failure with no knowledge of the reason. The practice work will disclose these tendencies to the trained eye of the critic. They will be frankly and freely

explained, hence remedied before they become fixed as ruinous habits. Teachers are often misjudged because of embarrassment when visited by principals or superintendents. One of the effects of the practice teaching is to overcome such timidity so that one's best work is done under the inspiration of the presence of competent critics. Faith in the practicability and efficacy of the best methods is inspired, courage to undertake new methods suggested by study, reading and observation, and even confidence in one's own ability to originate methods and adaptations to existing conditions.

The practice teaching done by the student is based directly upon his study of the theory and art in some of its phases. Students are required to exemplify in practice work theories and principles evolved in class recitations upon the art of teaching, the science of psychology, or the art of school management.

The matter to be taught is indicated to the student by the Critic teacher some days in advance of the time for the lesson. The student prepares the plan for the lesson. This is submitted to the Critic teacher and frequently to the teacher of pedagogy and of the special subject. In the light of criticism from these sources the student revises and perfects his plan which at the appointed time is put into practice. He is required to have a clear understanding of the aim and method, and is expected to produce definite results. His teaching is criticised by the Critic teacher, and he is required to give special attention in succeeding lessons to the remedy of characteristic defects to which his attention is called. Conferences are held in which typical mistakes and weaknesses are discussed for the benefit of the entire training class.

PSYCHOLOGY.

MR. BENNETT.

A preliminary view of this subject is given in the first year in the study of pedagogy. Throughout the second year of the Normal Course the subject is pursued with an aim to give the student a working psychological basis for further pedagogical study; to give him a true insight into the child's various activities, whether study, play, mischief, or abnormal acts, and thereby prepare him to handle these matters intelligently as a teacher; to train him for logical thinking and scientific reading; and withal to enable him better to understand himself and direct his own life activities for his own highest development. No subject of study shows so clearly and convincingly the inviolable laws of conduct and reward or penalty as does psychology. It is aimed to make these laws so definite to the student that they will tend to become guiding principles in his life and in the lives of his pupils through his teaching.

The effort is distinctly to avoid slavish adherence to any particular school of psychologists. Where there are essential differences of opinion a conservative theory is thoroughly taught and conflicting ones are explained briefly or mentioned for future study if the student desires. James' Psychology will be used as a text but collateral reading in many modern authorities will be required.

In the vitally important questions wherein psychology touches upon religion, the student is carefully led to retain the better authenticated religious ground, if conflict in his mind should arise, until the psychological shall have been reconciled to it. The shallows of mere skepticism are thus avoided and the reconciliation and mutual substantiation of psychology and established religious principles is found and established.

HISTORY OF EDUCATION.

MR. BENNETT.

This subject occupies two terms of the third year. It aims to widen the student's professional horizon and make him feel the dignity of his calling. It aims to give him true pedagogical perspective and enable him to estimate accurately the value of courses of study and methods of teaching. It aims to inspire him to a willing subordination of the lust of material gain and an appreciation of immortal rewards for a life devoted to the uplifting of his fellow man, for by the prevalence of such ideals of life the world has been and ever must be educated.

A vital sympathy with the spirit of each period and each leader in the world's educational history is the immediate aim of the course. The mere facts and dates are made subordinate though probably thereby made more clear and valuable. Frequent review outlines made by the students will insure a clear classification and correlation of the essential facts. Much collateral library work is required and numerous special reports by individual students supplement the class work.

National School Systems.—An elective course will be given, whenever there may be sufficient demand, in which a careful study will be made of the development and essential facts of the school systems of Germany, France, England and the United States.

LATIN.

DR. YOCUM.

Every teacher should have some knowledge of Latin—it is absolutely necessary to a thorough understanding of English, and

the so-called English branches cannot be successfully taught without it. The Department aims to give its students such a course in Latin as will prove of most use to them in their teaching.

In the study of Latin *thoroughness* is the especial aim. From the first day to the very last there are constant drills upon forms. Syntax and parsing occupy much of the time of the three years, the translation of the selected extracts being only a part of each day's work. Exactness in translation and construction is insisted upon from first to last.

In the second year the students have interesting selections from comparatively easy Latin writings, fables, stories, biographies, and poetry, leading up to a study of Cæsar which constitutes the main work of this year. All through the second year much attention is given to prose composition using as a foundation the stories read in the Latin.

Vergil's "Aeneid" occupies the time of the third year affording an opportunity for studying the principles of prosody and entering into an appreciation of the beauties of classic literature. Mythology and ancient history go hand in hand with this, making the Latin vivid and interesting.

LITERATURE.

DR. YOCUM.

The central aim of the study of literature in the Normal Department is to give our students, first, the power to unlock the wealth stored in the books of the world, and to appropriate it for their own soul's enrichment, and, second, to inculcate an insatiable thirst for the best of it.

In the Common School Course the aim is toward the mastery of the mechanism of reading, the pupils being constantly drilled in both sight and prepared reading lessons from the best writers. A considerable amount of library reading in the best current magazines is required to be done and reported upon. Thus is developed the student's power to grasp the contents of the paragraph or page. As the writings of the best authors are studied, incidentally authors themselves are made familiar to the pupils. Thus an introduction to the best literature is prepared for. Oral reading is required constantly, but the aim is thought-mastery rather than elocution.

In the Normal Course literature is studied as literature, and the choicest authors of American and English classics are laid before the students for their thorough enjoyment and profit. In the whole curriculum there is no study more refining. Nothing contributes more to culture, nobility of spirit, breadth of sympathy, and human interest. It is the study *par excellence* which contributes to the student's present and future enjoyment of the really good things of life.

No attempt is made to study critical details of structure except in so far as such study may contribute directly to the student's fuller enjoyment of the spirit of the work he is studying. The chief aim in the work of this year is to create an abiding love for the beauties of literature.

ENGLISH LANGUAGE.

DR. YOCUM AND MR. ————.

The training in English falls into two principal lines. First, we endeavor to enable the student to understand the thoughts of others, and to give expression to his own; second, to cultivate a

taste for the best reading. With these objects in view, training in the expression of thought necessarily demands a large share of the student's time. Throughout the course this is made especially prominent. It is recognized that daily practice and criticism is essential to acquire the power of ready expression and clear discrimination in the use of precise and elegant language.

Orthography and Orthoepy.—During two terms of the Common School Course two recitations a week are devoted strictly to a study of the orthography and orthoepy of the English language. While it is to be presumed that much of this has been studied in the lower grades of school from which our students come, so notorious is the fact that college students and teachers are sadly deficient in spelling, punctuation, capitalization, the use of diacritical marks, synonyms, homonyms, and antonyms, that the Normal Department makes this its first work. The subsequent study of English must not be hampered and robbed of its appropriate results through the weakness of this foundation work. This study is not only conducted formally, but is closely correlated with other work in English language and literature and with the class work in all other subjects. Constant use is made of the dictionary to secure accuracy, and to inculcate the habit of frequent reference to authority.

English Composition.—Strictly speaking, training in composition is carried on throughout the entire Normal Course. Constant attention is given to both oral and written composition in the belief that the power of ready and forcible expression of one's thought can be acquired only through years of patient training. Not only is training given in the class work as far as practicable, but every influence possible is brought to bear upon the students to arouse in them the ambition and the determination to make every sentence they speak and every sentence they write a training in English composition. Persistent effort, and

not grammatical rules, is the means by which the power of expression is thought to be attained.

Expression and not imitation is the aim. For this reason only those subjects are assigned for composition work in which the pupil is known to have something to *express.* The work is correlated as far as practicable with the other departments, the current topics of study in pedagogy, literature, history, geography, etc., often forming the themes for the composition and essays.

Rhetoric.—After their prior training, second-year students should be capable of studying rhetoric in a scholarly spirit. The figures of speech, selection of words, principles of sentence structure and paragraphing and the essential differences in the forms of discourse are made full of life and vividness through the collateral study of the best rhetorical gems in oratory and literature. Each topic, as far as practicable, is studied from the best examples as given by the greatest writers and speakers. As soon as the student has an insight into the spirit, as well as the structure and mechanism involved, he is given practice in the production of essays in the same line drawn from themes near to his own life.

Grammar.—While neither a command of English nor a power of appreciating its best forms is acquired through the study of grammar, and hence the work already outlined receives by far the larger portion of the attention of our English department, yet it is not to be denied that a study of English grammar, aside from its great value as logical training, is useful as a part of the training in English language. Hence, this subject is studied in connection with composition in the Common School Course. A thorough course, about as presented by the best school text-books, is given in the first Normal year. In the third year a review of grammar with a more critical study of the structure of the language, illuminated by the intervening study of other languages, occupies the time devoted to English language during one term.

In connection with this class careful attention is given to the pedagogical position of grammar in the school curriculum and its relation to English composition.

MATHEMATICS.

MR. CAWTHON.

In the Common School Teachers' Course an attempt is made to present arithmetic as a school science; due regard being given to the previous environments of the student, and to his particular stage of development along the line of mathematical studies. He is required to seek in the industrial and social life of the time the materials for the greater number of his problems, and to prepare for himself the data necessary to their solution. Through constructive geometry in its simplest phases the work of arithmetic and manual training are unified. The data for many problems involving geometric magnitudes are supplied by the manual training course for this year.

During the third term algebra is introduced in an informal way. Attempts are made to have the student use the equation to formulate some actual condition which he has defined. Considerable practice is given in finding the values of algebraic expressions by the substitution of known numbers for the algebraic symbols.

In the Normal Course, first year, two recitations per week are given to arithmetic and three to algebra. The former subject is treated as a science of pure number. Several topics treated in most text-books on higher arithmetic are omitted. Frequent exercises in mental arithmetic in which a special text-book is used constitute a feature of this course.

In algebra all of the topics usually taught in this subject the first year are considered. Square paper and the graph, with whose use the student is also made familiar in the arithmetical exercises of the Common School Course, are here extensively employed in the solution of simultaneous linear equations.

During the first term of the second year the class continues the study of algebra through quadratic equations of one unknown quantity. Appeal is made here to the geometric intuition of the student by requiring him to show graphically the conditions for real and unequal, and imaginary roots.

The last two terms are devoted to the study of Plane Geometry, considerable attention being given to exercises requiring original demonstration and solution. These are regarded as having vital relations with the theorems and corollaries whose demonstrations are given in the text.

Solid Geometry is studied during the first term of the third year. In treating this subject the various properties and relations of points, lines and planes in space are viewed from the concrete standpoint.

The next term is devoted to Plane Trigonometry, considered mainly from the experimental standpoint. Prominent in the course are the constructions of the curves of the Six Trigonometric functions and the actual measurement of heights and distances.

Arithmetic Review.—The last term is devoted to a review of arithmetic in the light of intervening studies in mathematics. In this course special attention is given to the methods of presentation of the various operations, to the history of arithmetic and to the much discussed questions of weeding out obsolete operations and the substitution of algebraic processes in others.

HISTORY AND CIVICS.

MR. LYNCH.

In the study of history the Normal Department endeavors not only to afford all that knowledge of historical facts which is expected of an educated person, and required in the most rigid teachers' examinations, but to inculcate a love of historic knowledge and research, and, more than all, an insight into that philosophic relation between the events of history and the intellectual and moral conditions of mankind which have been related to them as cause or as effect. Every child who begins a text-book in history is supposed to know that the chief reason for his studying this subject is that, as a citizen of the future, he may know how "to steer the Ship of State" free of the reefs that have caused the wreck of the nations of old and into the channels of peace and glory. But the conscientious teacher well knows that it is a difficult matter to find in the ordinary text-book course as presented in the grades what particular part does in any true sense fit the child for better citizenship.

It is our effort to so present the subject of history not only that our students themselves may have the lessons which in reality prepare them for more useful lives among their fellowmen, but to keep this idea uppermost so that they in turn will infuse among the future citizens who will shortly come under their instruction as much as possible of the true spirit of good and intelligent citizenship. This is thought to be accomplished by inculcating the spirit of patriotism, a love of the right, and study of the great characters who have made our country's history glorious, and especially by tracing the cause and effect, and showing how, in history, right inevitably ends in good, and wrong as a necessary result brings suffering and unhappiness.

During the first two terms of the Common School Course United States history is studied. Florida history and a brief study of the Florida Constitution are taken in the third term. Civil government of the United States takes the place of history during the fall term of the first Normal year. During the second year general history is studied, with especial attention to the history of Greece, Rome and England. In the third year a review of the United States history is made during the first two terms, special attention being given to its pedagogic phases, and to the historic meaning of the political problems which have occupied the attention of statesmen from the beginning of the nation.

The library is well supplied with the best standard historical works, and with sources of information upon ancient, modern and current history. Complete files of the Old South Leaflets, American History Leaflets, Messages and Documents of the Presidents, and other compilations of copies of historic documents have been supplied, and are in constant use by the classes in history whose work is chiefly source study. It is by means of this study of the sources of history that students are trained to form independent judgments and to corroborate the conclusions of the text-book writers. They are brought into touch with the real history of the time which they are studying that it may be to them a time of real life and interest, and not merely the mythical, unreal, uninteresting period which it would seem from their text-books. Care is taken to avoid our students' becoming mere skeptics. A proper respect for the authority and judgment of historians is taught. But this studying of history from documentary, pictorial and other sources gives a vividness not otherwise attained, and a habit of looking for evidence on both sides; destroys prejudices, enlarges the student's horizon, and gives him the clue to his own close connection with the world's history.

GEOGRAPHY.

MR. LYNCH.

In the Common School Course two terms are given to the study of geography. As in all other subjects a fair previous knowledge is presumed but a thorough review will be made of the subject matter as given in the best school texts. The work will be correlated with nature study, manual training and history. Maps, globes, atlases and much supplementary reading will be used. The great value of this subject as a center of school interest and correlation will be made clear by lessons arranged for the purpose. Excursions for the study of home geography, outline and color map drawing of neighboring geographical features and of counties, states, and larger divisions, chalk modeling, relief maps in clay, sand and papier mache, all will be utilized to make the work vital, instructive and most valuable when carried to the school rooms over which the students will later preside.

PHYSICAL GEOGRAPHY.—This is studied in two terms of the first Normal year. The same vitalizing methods of study will be pursued as in the above. Laboratory experiments and neighborhood observations will illustrate soil formation, erosion, evaporation, condensation, air pressure, air and water currents, etc., while daily meteorological observations and records will make simple many of the phenomena of this chapter. Again the subject will be presented as a center of correlation for all sciences and much of literature.

ADVANCED REVIEW COURSE.—In the third year of the Normal Course geography like arithmetic, grammar and United States history, is required as a teachers' review. Here the facts are rapidly reviewed, classified and correlated; intervening studies in sciences, history, etc., are brought to bear to make the subject

more thorough; its pedagogical importance in the course as the science of all sciences is shown; the method of study by types is illustrated and put into practice, and no effort is spared to make the subject a powerful factor in vitalizing the education of the common schools.

BIOLOGICAL SCIENCES.

MR. FLOYD.

PHYSIOLOGY is taken up in the Common School Course for one term. The work is confined to the elements of human physiology and hygiene suitable for common school instruction. Charts, mannikins, skeletons and models of special organs are used to make the work clear and interesting.

BOTANY AND ZOOLOGY.—In the Second year Botany and Zoology are studied, the time being divided between the two sciences.

Microscopes and other apparatus necessary for microscopic studies will be used, but the aim is to devote most of the time to observation and study of representative species of all the great groups of plant and animal life, to life histories, habits and economic importance, rather than to emphasize minute structure, except when necessary for an understanding of the principles underlying processes of nutrition, growth, transpiration, etc.

In botany the course embraces a study of the morphology and function of all parts of the plant, methods of propagation, pollination, fertilization, relation of plants to each other, to animals and to man.

Field excursions are frequent for the study of plants and animals in their natural environment.

Students collect their own material for study in the laboratory. Simple experiments in seed germination, propagation by

cuttings and grafting, transpiration of leaves, absorption, root pressure, current of sap, etc., illustrate the activities of plants.

In zoology the well known insects are made the subjects of first lessons. Those that are of importance or interest from an agricultural or health standpoint are given special study.

Less known and lower forms of life are then studied and finally the vertebrates. Collections, laboratory studies and dissection, with reading supplement the text-book work.

AGRICULTURE.

MR. ————.

The object of the agricultural course in the Normal Department is to provide some general instruction in the more important principles of agriculture. The time is too limited for details, but it is hoped that the course will lead to a greater interest in the subject and encourage students to acquire a more perfect knowledge of it. Of the Southern population, about seventy-five per cent. are engaged in agriculture. Of this number very few, about one in ten thousand, attend agricultural schools or others where agriculture is taught. Agriculture, being the life work of so great a proportion of our people, should be studied in every public school, as these schools are the only ones ever attended by the majority of the people—that children may get accurate knowledge of the laws upon which agriculture is based, and so do their work in the world not only more profitably, but with less drudgery.

This Department is for the training of teachers, and it is essential that they be prepared to teach the principles of agriculture, not with the expectation of training farmers in the public schools, but to give the children an intelligent understanding of its fundamental principles, to direct their minds toward the difference

between stupid plodding and intelligent farming, to introduce them to the literature of agriculture and make available the invaluable publications prepared by the Government, and above all to inculcate a respect and love for this noblest of all industries.

The subjects studied embrace: Soil—its formation, fertility, rotation of crops, drainage and tillage. How plants feed: Propagation of plants—crosses and hybrids. Seed selection and testing. Grafting, budding, pruning. Disease of plants. Insects and birds related to agriculture. Domestic animals, etc.

A text-book is used as a guide. The splendid facilities afforded by the University and Experiment Station are of great value to this class.

SCHOOL GARDENING.

In connection with the classes in Agriculture and Nature Study there is practice work in the garden. Each member of the Agriculture class has a plot of ground to plant and care for. The work on the plots is done at regular periods under the teacher's supervision, but each student is responsible for his particular plot. It is hoped to make this work so practical and helpful that our students will soon have school gardens introduced generally throughout the State with the fine results that have been produced elsewhere.

PHYSICS AND CHEMISTRY.

MR. FLOYD.

In order to economize in the time required for the Normal Course no formal course will be prescribed in Chemistry, but particular care will be taken to present the fundamental principles of this science in connection with nature study, geography, and the biological sciences.

The principles of physics will be presented in a similar manner, but there will also be a formal course extending through two terms of the third year. This will include laboratory experiments and text-book studies with special reference to the exemplification of the laws of the science in the ordinary phenomena familiar to every-day life.

The further study of these subjects is elective, ample facilities and courses being offered by the University, and will be required of all who contemplate teaching sciences.

MANUAL TRAINING AND DRAWING.

MR. ————.

This work is essentially not of the "fad" variety. None is introduced with an idea that it is an end in itself. Through the classes in the Normal Department of the University it is hoped to rapidly introduce the work among the schools in every part of the State, and this purpose is constantly kept in view together with the direct benefit accruing to the pupils. The work in this Department is essentially hand work as distinguished from that requiring machinery, elaborate tools, or shops, as provided for in the University Courses in mechanics. Everything will be taught with a view to immediate introduction into any public school even where no funds are available for equipment, wherever there is a teacher who knows how a profitable course can be conducted.

While every exercise has a specific purpose in itself, the following are some of the general reasons for the introduction of this class of work:

Manual training bears a relation to all studies similar to that of speaking and writing. No thought is completely mastered until it has been expressed and but a small proportion of thought is susceptible of verbal expression. A certain amount of manual

expression is a psychical necessity to thoroughness in most studies.

Manual work gives a vital (not superficial) interest in the study of any subject with which it is correlated, thus making the knowledge clearer and the study more attractive.

Manual work gives interest not only to each subject with which it is associated but to the school life as a whole.

Manual work affords profitable and delightful occupation for the child's time solving the most troublesome problems of school discipline and organization.

Manual work brings a new life and meaning into many a dull and dreary rural home. It affords useful and healthful occupation for otherwise idle hands and minds.

Manual training is not a distinct subject of study added to an over-crowded curriculum, but rather a mental solvent to help digest the troublesome parts of every subject and secure more rapid assimilation by the child. It is a proven fact that discreet correlation of manual work with any subject results in economy. More of arithmetic, for instance, can be learned in a given time by devoting part of that time to correlated manual expression than by devoting it all to text-book study and recitation.

Manual work offers a physical relief and safeguard in the schools with no diminution of effective effort.

Manual work affords a general mental as well as physical training. It is the best means of unifying and harmonizing the several capacities of the child in practical efficiency for the duties of life.

Manual work is of immense practical utility in the daily lives not only of the great majority of public school children who will earn their living through manual dexterity but even for the minority who do not.

Manual training is a great democratic influence. It dignifies the labor of the hands and tends to remove superficial class dis-

tinctions. It is a natural and fitting characteristic of the public schools and a democratic form of government.

In the South particularly there is need for an intelligent people whose minds are turned toward the industrial possibilities of their natural environment and who will be practically efficient in its development. This is a prime purpose of manual work and the courses offered are arranged with special reference to this end.

The courses include among other things, basketry, weaving, cord work, clay modeling, knife work, bench work, Venetian iron work, and sundry utilization of native resources, beside drawing, chalk modeling, pyrography, paper folding and cutting, cardboard work, etc., correlated with academic studies.

Drawing is taught largely in correlation with other subjects and includes working drawings, geometric constructions, map drawing, perspective studies, chalk modeling and rapid blackboard sketching suited for teachers' use.

GENERAL INFORMATION.

DISCIPLINE.

Students of the Normal are, or expect soon to be, teachers. To be competent to govern a school, the first requisite is ability to govern one's self. Hence, the Normal Department gives students every possible freedom. The students are to be a self-governing body, but without the machinery of student-made laws, monitors and punishments. As gentlemen should be, and in life are, they are left to control themselves. The sense of responsibility for their own conduct and the wholesome desire to stand well in the eyes of their instructors and associates, together with the knowledge that they are daily building character and reputation which is to fix their status in professional life are the chief restraints.

Doubtless there are students who accomplish but little unless they are incessantly driven to their tasks. But the student body of a Normal is composed so largely of mature, earnest, self-sustaining teachers that the need of dicipline is seldom felt. The spirit of the student body should be so excellent, and the standard of study so high, that those who are not inclined to earnest work would soon find themselves lagging in the rear, and either be spurred by the highest incentives to their best efforts or become convinced that they are not suited for the teaching profession or Normal training. Hence, the Normal Department will have as few regulations as possible, and no system of demerits and punishment. The principles, and often the details of conduct and deportment which our students are expected to maintain, will be made clear. Failure to conform to these standards will be called to the attention of the offending one in a quiet, friendly way.

Students who are unwilling to be controlled in this manner are unworthy the occupation of a teacher, and will not be allowed to continue their studies here.

CONDITIONS OF ADMITTANCE.

Candidates must be not less than fourteen years of age.

ENTRANCE WITHOUT EXAMINATION.

Holders of unexpired Florida certificates of any grade may be admitted without further examination to the Common School Teachers' Course.

Graduates of the Rural Graded Schools, recognized by the State Board of Education as such, will be admitted to the Common School Teachers' Course without examination.

Applicants who have completed the work of the ninth grade of the State uniform course of study in a satisfactory manner will be admitted to the Three-Year Normal Course without examination.

Holders of valid First Grade Teachers' Certificates will be admitted to the Three-Year Normal Course without examination.

Graduates of Senior High Schools or of other institutions of equally high grade or of the Three-Year Normal Course will be admitted without examination to the Graduates' Professional Course.

School superintendents and principals may be admitted to professional classes as special students, upon approval of the Dean, without examination.

Candidates for admission holding certificates issued in other States should correspond with the Dean with reference to their acceptance.

ENTRANCE EXAMINATIONS.

Regular entrance examinations are held just before the beginning of each term (see Calendar), and others only by special arrangement.

Candidates not admitted on certificates or on work done in other institutions will be examined upon the following branches: orthography, reading, arithmetic, English grammar, geography, composition, United States history, physiology; and in other branches for advanced standing if desired.

In severity and scope, these examinations are equivalent to those required in the uniform examinations throughout the State, but in grading, credit is given rather to power and ability to study than to the memory of text-book facts.

No examination in theory and practice of teaching is required for admission.

CREDIT FOR ADVANCED STANDING.

Students entering upon certificates or diplomas as specified above, may receive credit for any work which they may have done in addition to that indicated by the certificate or diploma held, by passing satisfactory examinations thereon. No student is required to spend his time upon studies which the faculty is satisfied that he is thorough in, but credits will not be given for advanced standing for work in which the student is unable to pass a reasonable test required by the instructors.

Students receiving credit for part of the work of the class in which they are entered will be permitted to elect any other work for which they may be prepared, subject to the approval of the faculty.

GRADATION, PROMOTION, ETC.

In the gradation of students the Normal seeks to place each where he will accomplish the most. The great evil resulting

from crowding students ahead too rapidly is recognized, and they will not be permitted to take up studies which the faculty is not convinced they are prepared to pursue with success. Whenever, for any cause, sickness or otherwise, a student is unable to continue in the class to which he has been assigned with profit to himself and satisfaction to the teachers, his classfication will be changed, and it should be understood that when this is done it is for the benefit of the student.

If any student should at any time give evidence of his ability to do more advanced work in any branch successfully, and the arrangement of the program will permit, every effort will be made to so adjust his classification that he will waste no time on subjects in which he is already proficient.

The course of study will be found so arranged that nearly every student will be best classified by his doing all the work of some one grade rather than a part of the work of two or more grades.

The Department endeavors to avoid the undeniable evils attendent upon the use of term or annual examinations as the sole basis of promotion. The system of grading is as follows: Each teacher, as far as practicable, grades every pupil upon his class recitations. Frequent written tests are held, usually without the students being previously notified of the time at which they will occur. These tests are carefully graded. In the majority of the subjects more formal examinations are conducted at the end of each term or year. The grades from these three sources are combined with a grade based upon the teacher's estimate of the student's proficiency in the subject, and the resulting mark is recorded in the permanent records as the student's grade.

By this means it is thought that the evils of written examinations as a basis of promotion are avoided, and the advantage of written examinations and formal tests preserved.

CERTIFICATES AND DEGREES.

Students completing the Common School Teachers' Course will receive a certificate of that fact bearing the seal of the University and the signatures of the President and the Dean of the Department.

Students completing the Three-Year Normal Course will receive the diploma and degree of Licentiate of Instruction and will be authorized to use the letters "L. I." after their names.

Students completing the Graduates' Professional Course will receive the diploma and degree of Bachelor of Pedagogy and will be authorized to use the letters "B. Ped." after their names.

Graduation will be denied to any student whose scholarship, conduct or habits are deemed unworthy of public confidence or the sacred responsibilities of a teacher.

AID IN SECURING POSITIONS.

The Dean and Faculty are ever ready to render deserving students all possible aid in securing positions. As good teachers are always in demand throughout the State, pupils seldom have difficulty in securing as good places as they are competent to fill. Superintendents are invited to correspond freely with the Dean regarding teachers for any vacancies in their schools.

Students matriculating for this Department should confer with and all correspondence relative thereto should be addressed to the Dean.

THE SUMMER SCHOOL.

The University Summer School is organized and conducted with special reference to the needs of three classes of students:

1. TEACHERS who may desire to pursue their studies for a part of the summer either for purposes of general culture and the stimulation that results from intellectual contact and activity, or for the specific purpose of preparing themselves more thoroughly to take the State examinations for county or State certificates. Every effort will be made to make the Summer School of special and immediate benefit to this class; and it is hoped that it may prove a rallying point for the teachers of the State, and be of great service to the general cause of education.

2. APPLICANTS FOR ADMISSION into the Freshman class of the University of Florida, or other similar institutions, who need special preparation for the entrance examinations. Such students will find attendance upon the Summer School very helpful, as it will afford them an opportunity to review part of the work required for entrance, and to strengthen themselves in those subjects in which they may be deficient.

3. DEFICIENT STUDENTS, who have failed on one or more subjects in their regular college course, and who desire to make up their deficiency during the summer in order that they may go on with their regular class. For the present the Summer School does not propose to provide for students of this class who rank higher than Freshmen or Sophomores in their college work; but college men of the lower classes, who have failed in any of their studies, will find the Summer School of great service in helping them to bring up their work.

No formal examination will be required for admission to any of the Summer classes; but those students who expect to receive a certificate of work done in any course may be required,

at the discretion of the professor in charge, to stand a final examination on the work covered during the term.

All classes will meet regularly five times a week. The schedule will be announced at the opening of the term, and will be arranged to accommodate the needs of the largest number. Special cases will receive special attention.

The tuition fee will be $10 for the term of six weeks. This will entitle the student to all the privileges of the school. There will be no other charge except for the material actually used in the work in Chemistry, which will be charged for at actual cost. Any damage to University property must be made good by the student doing the damage.

Board and rooms may be had on the campus at $12 per month. The rooms are equipped with all the necessary heavy furniture, are lighted throughout by electricity, and are attended to by the University janitors. Students must furnish their own pillows, bed linen and towels. The ladies' dormitory will be in charge of a competent matron.

All buildings of the University will be open to students of the Summer School. This includes the use of the gymnasium, and the general library and reading room, from which books and periodicals will be issued according to the usual regulations.

An effort will be made to secure special railroad rates; and applications for such rates should be filed with the President as early as possible.

The courses for 1906 are specified above, pages 45 and 46.

In addition to the regular class room courses, a general popular lecture will be provided twice each week during the term. These lectures will deal with a variety of subjects, both interesting and instructive, and will be open free to the students of the Summer School.

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MEANS OF ACCESS.

Students will find Lake City easily accessible from all sections of the State.

The Seaboard Air Line with its connections at Jacksonville and River Junction furnishes convenient transportation from every part of the country. The Georgia Southern and Florida and its connections at Palatka with the East Coast and other roads offer facilities for students coming from the northern and southern parts of the State. The Atlantic Coast Line, with its various branches, gives additional means of transportation from every section.

University Record

Vol. I. MAY, 1906 No. 2

Published Quarterly by the University of the State of Florida
Gainesville, Florida

CATALOGUE
1905-'06

ANNOUNCEMENTS
1906-'07

Gainesville, Florida

Entered, February 26, 1906, at the Post Office, at Lake City, Fla., as second-class matter, under Act of Congress, July 16, 1894

ONE OF THE DORMITORIES—TO BE USED AS A LECTURE HALL IN 1906-'07

THE UNIVERSITY

OF THE

STATE of FLORIDA

Catalogue 1905-'06

Gainesville, Florida

1906-'07

Press of The Record Company
St. Augustine, Florida

Sound Morals the Basis of Good Citizenship

CALENDAR

1906—September 25, *Tuesday*.....Summer Recess ends.
Examination for Admission.
Registration of Students.
September 26, *Wednesday*.....First Semester begins.
December 21, *Friday*, 4 *p. m.*.....Christmas Recess begins.

RECESS

1907—January 1, *Tuesday*, 10 *a. m.*.....Christmas Recess ends.
February 5, *Tuesday*.....First Semester ends.
February 6, *Wednesday*.....Second Semester begins.
May 26 to 29.....Commencement Week.
May 26, *Sunday*.....Baccalaureate Sermon.
May 27, *Monday*.....Literary Societies.
May 28, *Tuesday*.....Alumni Meeting.
Oratorical Contest.
May 29, *Wednesday*.....Graduating Day.
May 30, *Thursday*.....Summer Recess begins.
May 31, *Friday*.....Examination for Admission.

SUMMER SCHOOL

June 17, *Monday*.....Summer Term begins.
July 26, *Friday*.....Summer Term ends.

1906

JULY

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BOARD OF CONTROL

N. P. Bryan, Chairman.....Jacksonville
P. K. Yonge.....Pensacola
A. L. Brown.....Eustis
T. B. King.....Arcadia
J. C. Baisden.....Live Oak

J. G. Kellum, Secretary to the Board

FACULTY AND INSTRUCTORS

ANDREW SLEDD, Ph. D., LL. D.,

President, and Acting Professor of Philosophy.

Principal Public Schools, Arkadelphia, Ark., 1892-93; A. B., and A. M., Randolph-Macon College, 1894; Instructor, Randolph-Macon Academy, 1894-95; Graduate Student, Harvard University, 1895-97; A. M., Harvard, 1896; University Scholar, Harvard University, 1896-97; Professor of Latin, Emory College, 1898-1902; Graduate Student and University Scholar, Yale University, 1902-03; Ph. D., Yale, 1903; Professor of Greek, Southern University, 1903-04; President, University of Florida, 1904-05; LL. D., South Carolina College, 1905; present position, 1905—.

JAS. M. FARR, A. M., Ph. D.,

Vice-President and Professor of English.

A. B., Davidson College, 1894; A. M., Davidson College, 1895; Graduate Student, Johns Hopkins University, 1895-96 and 1897-1901; Ph. D., Johns Hopkins University, 1901; Instructor in English, Randolph-Harrison School, 1900-01; Professor of English and German, University of Florida, 1901-05; present position, 1905—.

W. F. YOCUM, A. M., D. D.,

Professor of Education.

A. B., Laurence University, 1860; B. D., Garnett Biblical Institute, 1869; Professor of Mathematics, Laurence University, 1869-74; Professor of Natural History, Laurence University, 1874-76; President, Fort Wayne College, 1877-88; D. D., Laurence University, 1882; Principal, Summerlin Institute, 1889-92; President, Florida Agricultural College, 1892-93; Professor of Philosophy, Florida Agricultural College, 1893-94; Superintendent of Public Schools, Gainesville and Bartow, 1894-97; President, Florida Agricultural College, 1897-1901; Professor of Latin, Greek, and Philosophy, University of Florida, 1901-05; University of the State of Florida, 1905-06; present position, 1906—.

EDWARD R. FLINT, B. S., Ph. D., M. D.,

Professor of Chemistry.

B. S., Massachusetts Agricultural College, 1887; Ph. D., University of Göttingen, 1892; Assistant Professor of Chemistry, Massachusetts Agricultural College, 1893-99; Medical Student, Harvard University, 1899-1903; M. D., Harvard, 1903; Professor of Chemistry, University of Florida, 1904-05; present position, 1905—.

M. T. HOCHSTRASSER, B. S., M. E.,

Professor of Mechanical Engineering and Drawing.

B. S., M. E., Georgia School Technology, 1902; Adjunct Professor of Mathematics, Georgia School Technology, 1902-03; Drawing and Construction Work, 1903-04; Professor of Mechanical Engineering and Drawing, University of Florida, 1904-05; present position, 1905—.

KARL SCHMIDT, A. M., Ph. D.,

Professor of Mathematics and Astronomy.

Graduate Student, University of Marburg, 1893-94, Berlin, 1894-97, and Marburg, 1897-98; A. M., Ph. D., Marburg, 1898; First Assistant in Physical Laboratory, Mar-

burg, 1900-01; Lecturer on Mathematics, Harvard University, 1901-03; Professor of Physics, Bates College, 1903-04; Professor of Mathematics and Astronomy, University of Florida, 1904-05; present position, 1905—.

E. H. SELLARDS, M. A., Ph. D.,

Professor of Zoology and Geology.

M. A., Kansas State University, 1900; Ph. D., Yale University, 1903; Assistant Geologist, Kansas State Geological Survey, 1900-01; Graduate Student, Yale University, 1901-03; University Scholar, Yale University, 1901-02; Fellow, 1902-03; Instructor in Geology and Mineralogy, Rutgers College, 1903-04; Professor of Zoology and Geology, University of Florida, 1904-05; United States Geological Survey, Division of Hydrology, summer 1906; present position, 1905—.

J. R. BENTON, A. B., Ph. D.,

Professor of Physics and Civil Engineering.

A. B., Trinity College, Hartford, Conn., 1897; Ph. D., Göttingen, 1900; Instructor in Mathematics, Princeton University, 1900-01; Instructor in Physics, Cornell University, 1901-02; Special investigation work in Physics, Carnegie Institution, Washington, D. C., 1904-05; present position, 1905—.

DAVID YANCEY THOMAS, A. M., Ph. D.,

Professor of History and Political Science.

A. B., Emory College, 1894; Principal Perote Academy, Perote, Ala., 1894-95; Principal Public School, Coleman, Ga., 1895-96; Scholastic Fellow, Vanderbilt University, 1896-98; A. M., Vanderbilt, 1898; Professor of Greek and Latin, Hendrix College, 1898-1901; Graduate Student, University of Chicago, Summer Quarters, 1899 and 1900; University Fellow in History, Columbia University, 1901-02; Ph. D., Columbia, 1903; Professor of History and Political Science, Hendrix College, 1902-05; present position, 1905—.

JAS. N. ANDERSON, M. A., Ph. D.,

Professor of Latin and Greek.

M. A., University of Virginia, 1887; Morgan Fellow, Harvard University, 1887-88; Student, Universities of Berlin, Heidelberg and Paris, 1889-90, 1896; Ph. D., Johns Hopkins University, 1894; Professor of Greek, Florida State College, 1903-05; present position, 1905—.

C. L. CROW, M. A., Ph. D.,

Professor of Modern Languages.

M. A., Washington and Lee University, 1888; Ph. D., University of Göttingen, 1892; Vice-Principal, Norfolk High School, 1894-95; Professor of Latin and Modern Languages, Weatherford College, 1895-99; Adjunct Professor of Romance Languages, Washington and Lee University, 1899-1905; present position, 1905—.

_____*

Professor of Agriculture and Horticulture.

LOUIS R. BALL, 1st Lieutenant, 13th U. S. Cavalry,

Commandant of Cadets; Professor of Military Science.

*To be supplied.

N. H. COX, B. S.,

Assistant Professor of Civil and Mechanical Engineering.

B. S., Florida Agricultural College, 1896; Instructor in Mechanical Engineering, Florida Agricultural College, 1896-98; Special Student, Cornell University, Summer Quarter, 1902; Professor of Mechanical Engineering and Drawing, Florida Agricultural College, 1898-1904; Professor pro tem. of Civil Engineering, University of Florida, December, 1904—June, 1905; present position, 1905—.

W. L. FLOYD, B. S.,

Assistant Professor of Biology and Physics.

B. S., South Carolina Military Academy, 1886; Principal, Clio School, 1888-89; Principal, Cyprus High School, 1889-92; Instructor in English, East Florida Seminary, 1892-96; Graduate Student, Harvard University, 1902-03; Professor of Natural Science, East Florida Seminary, 1896-1905; Professor of English and Science, Normal Department, University of the State of Florida, 1905-06; Graduate Student, University of the State of Florida, 1905-06; present position, 1906—.

OTHER OFFICERS.

W. P. JERNIGAN,

Auditor and Book-keeper.

_____[*]

Physical Director.

_____[*]

Librarian.

MRS. S. J. SWANSON,

Matron.

L. C. ALGEE,

Stenographer.

[*]To be supplied.

STANDING COMMITTEES OF THE FACULTY

FOR 1906-1907

The President of the University is *ex officio* a member of all Standing Committees.

ON COURSES AND DEGREES

1. For the Bachelor of Arts Course:
   Professors FARR, SCHMIDT, ANDERSON, THOMAS, and FLINT.
2. For the General Science Courses:
   Professors FLINT, SELLARDS, SCHMIDT, BENTON, and CROW.
3. For the Engineering Courses:
   Professors HOCHSTRASSER, BENTON, COX, and SCHMIDT.
4. For the Agricultural and Horticultural Courses:
   Professors ————, SELLARDS, and FLINT.
5. For the Pedagogical Courses:
   Professors YOCUM, FLOYD, FARR, THOMAS, and SELLARDS.

ON ENTRANCE EXAMINATIONS AND CLASSIFICATION

Professors FARR, SCHMIDT, ANDERSON, and THOMAS.

ON SCHEDULES

Professors FLINT, BENTON, and COX.

ON DISCIPLINE

Professors SELLARDS, THOMAS, and the COMMANDANT.

ON ATHLETICS

Professors COX, CROW, and the COMMANDANT.

ON THE LIBRARY

Professors THOMAS, CROW, and BENTON.

MILITARY ORGANIZATION

COMMANDANT

JAS. D. TAYLOR, JR., Capt. 18th U. S. Inf.

BATTALION AND FIELD STAFF

C. O. Rivers.....Major
J. W. Dougherty.....Major
W. D. Wheeler.....1st Lieutenant and Battalion Adjutant
Karl Bardin.....1st Lieutenant and Battalion Quartermaster
T. Z. Cason.....Battalion and Sergeant Major
R. H. Chapman.....Battalion Quartermaster Sergeant

BAND

A. R. Haile.....Principal Musician
C. A. Thompkins.....Drum Major
C. A. Knight.....Sergeant
R. D. Liddell.....Corporal
T. C. Thompson.....Corporal
G. C. Robey.....Corporal

	Company A.	*Company B.*
Captains	H. Gunter	John Carney.
1st Lieutenants	W. A. Brown	O. E. Humphrey.
2d Lieutenants	G. T. Jarrell	A. R. Nielsen.
1st Sergeants	M. L. Moremen	D. S. Bryan.
Sergeants	C. L. Canova	C. F. Fisher.
	W. T. Hall	R. F. Persons.
	J. P. Hyman	J. B. Earman.
	B. Barrs	J. H. Dowling.
Corporals	S. E. Jenkins	R. L. Buie.
	James Kirk	J. A. O'Berry.
	W. W. Gibbs	E. C. Bryan.
	G. B. Ames	A. C. Curry.
		R. S. Chapin.
Corporal and Musician	R. H. Dean, Jr.	R. M. Temple.

GENERAL INFORMATION

Name and History.—The University of the State of Florida represents the culmination of a movement which originated in territorial days.

In the Memoirs of Florida we read: "In 1836 a University of Florida was proposed, of which Joseph M. White, Richard K. Call, Thomas Randall, J. G. Gamble, and others, were named as Trustees in the act of Congress which authorized the sale of lands for its support" (I, 168). This is the first official mention which we find of a "University of Florida." Nothing, however, came of this proposal.

Between this time and the Civil War the movement for public education, both lower and higher, grew considerably in the State. In 1845, when Florida was admitted to statehood, she received from the general government nearly 100,000 acres of land for the establishment of the Seminaries east and west of the Suwanee river; and the East Florida Seminary was established, first at Ocala, in 1852, and later removed to Gainesville, in 1866; and the West Florida Seminary was established at Tallahassee in 1856. There was, however, during this period, no institution in the State bearing the title and exercising the functions of the University of Florida.

The State Constitution adopted in 1868 contained the following provision looking to the establishment of a State University: "The Legislature shall provide a uniform system of common schools *and a University,* and shall provide for the liberal maintenance of the same. Instruction in them shall be free." (Art. VIII, Sec. 2.)

Pursuant to this action, the Legislature of 1869 passed "An Act to Establish a Uniform System of Common Schools and a University." Two sections of this Act are of particular interest.

It is proposed (Sec. 11, 6th): "To use the available income and appropriations to the University or Seminary Fund, in establishing one or more departments of the University at such place or places as may offer the best inducements, commencing with the Department of Teaching and Preparatory Department, etc., etc.

"7th. To keep in view the establishment of a University on a broad and liberal basis, the object of which shall be to impart instruction to youth in the professions of teaching, medicine and the law; in the knowledge of the natural sciences; the theory and practice of agriculture, horticulture, mining, engineering, and the mechanic arts; in the ancient and modern languages; in the higher range of mathematics, literature, and in the useful and ornamental branches not taught in common schools."

The plan outlined in this section is a credit to this State or to any state, and shows a high ideal and purpose of which we may well be proud. But, unfortunately, this ideal and purpose found no tangible manifestation; and the State still continued without an actual University.

The State Constitution of 1885 contains the following: "The Legislature shall provide by general law for incorporating such educational, agricultural, mechanical, mining, transportation, mercantile, and other useful companies or associations as may be deemed necessary; but it shall not pass any special law on any such subject, and any such special law shall be of no effect; *Provided,* however, that nothing herein shall preclude special legislation as to University or the public schools, or as to a ship canal across the State." (Sec. 25.) This action was taken in the summer of 1885.

In the spring of the same year, (Feb. 16th, 1885), the Legislature had passed "An Act Recognizing the University of Florida," which reads as follows:

"The people of the State of Florida, represented in Senate and Assembly, do enact as follows:

"*Section* 1. That the Florida University as organized at the city of Tallahassee be recognized as the University of the State, and to be known as the University of Florida; *Provided,* there shall be no expense incurred by the State by reason of this act.

"*Sec.* 2. That the University continue under its present organization and officers until such further action be taken by the State Legislature as the case may require."

It will be observed that this is "An Act *Recognizing* The University of Florida." This phraseology is due to the fact that a couple of years before this act was passed (*i. e.* in 1883) the State Board of Education had projected a plan of consolidation or co-ordination, in accordance with which the then West Florida Seminary was denominated "The Literary College of the University of Florida." Accepting this action of the State Board, the Legislature passed this "Act *Recognizing* the University of Florida." It seems probable, however, that the State Board had in view originally a somewhat different plan from that which found expression in this act of the Legislature.

Meanwhile, in 1870, the State Legislature had passed "An Act to Establish the Florida Agricultural College," in accordance with the Act of Congress of 1862, entitled "An Act Donating Public Lands to the Several States and Territories which may Provide Colleges for the Benefit of Agriculture and the Mechanic Arts."

For the support of such institutions, *Section* 1 of this act grants to each State "an amount of public land, to be apportioned to each State in quantity to equal thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of 1860: *Provided,* that no mineral lands shall be selected or purchased under the provisions of this act."

In *Section* 4, it is required "that all moneys, derived from the sale of the lands aforesaid by the States to which the lands

are apportioned, and from the sales of land scrip hereinbefore provided for, *shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks;* and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in Section fifth of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Section 5 defines the obligations which the States assume in accepting these grants:

"*First. If any portion of the fund invested,* as provided by the foregoing section, *or any portion of the interest thereon, shall,* by any action or contingency, *be diminished or lost, it shall be replaced by the State to which it belongs* so that the capital of the fund shall remain forever undiminished; and *the annual interest shall be regularly applied without diminution to the purpose* mentioned in the fourth section of this act, except that a sum not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective Legislatures of said States.

"*Second.* No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense what-

ever, to the purchase, erection, preservation, or repair of any building or buildings."

Section 8 further demands "That the Governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds."

In 1870 the Legislature of Florida, by an act entitled "An Act to Establish the Florida Agricultural College," accepted the Federal grant upon the conditions and under the restrictions contained in the Act of Congress quoted above, and thereby entered into a *contract* with the United States Government to erect and keep in repair all buildings necessary for the use of the institution.

After decreeing the establishment of a college in accordance with the Congressional requirements and appointing trustees for its control this act (*Section* 7), authorizes the trustees, "to claim and receive from the Secretary of the Interior the agricultural college land scrip to which this State is entitled by Act of Congress, July 2, 1862, and acts supplemental thereto."

Section 8 prescribes the disposition of the funds: "Ten per centum of the proceeds of the sale of the scrip, or of the land, may be expended for the purpose of a site for an experimental farm. The remainder of the proceeds shall be *invested in stocks of the United States, or of some of the States of the Union, bearing an annual interest of not less than six per centum on their par value,* and shall remain a permanent fund forever. The annual interest of the fund shall be regularly applied *without diminution* to the purposes set forth in *Section* 2 of this act. Donations may be made for specific purposes, and shall be applied to the objects for which they were granted."

Section 9 provides that "No portion of the principal or interest of the fund shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repairs of any building or buildings, or for expenses incurred in selling the scrip, locating the lands, or in managing the funds of the lands."

In 1872 an act supplementary to the act of 1870 was passed; and the State, having availed herself of the act of 1862, received ninety thousand acres of land. The proceeds from the sale of this land was invested in "The Agricultural College Fund" bonds, the par value of which is one hundred and fifty-three thousand and eight hundred ($153,800) dollars. From this fund the University receives about seventy-seven hundred ($7,700) dollars of annual income.

In 1873 a site for the college was selected in Alachua county, but nothing further came of this step. In 1875 the college was located at Eau Gallie, and a "temporary college edifice" was erected. No educational work having been accomplished there, the trustees, in 1878, determined to remove the college, and a committee from the Board was appointed to decide upon a suitable situation. In 1883 Lake City was selected on account of its special fitness; and, the citizens having given to the institution one hundred acres of land and fifteen thousand ($15,000) dollars, the college was established there.

Upon the completion of the main building in the fall of 1884, the doors of the institution were thrown open to students, and from that date there has been a steady increase in its efficiency and usefulness.

In the second catalogue of the new institution, dated "June, 1887," we find in the roster of the faculty "Rev. J. Kost, LL. D., Professor of Moral Philosophy and Geology, and Curator of Museum." And a foot-note adds this interesting information:

"Rev. J. Kost, LL. D., is also Chancellor of the University of Florida." The exact nature of the relationship indicated by this statement may be inferred from the following statement which is found in the same catalogue (1887):

"At the annual meeting of the Board of Trustees of the Florida Agricultural College, held at the College, at Lake City, June 17th, 1886, the following resolution was adopted:

"*Resolved,* That the Board of Trustees of the Florida Agricultural College believe that the educational interests of this State would be advanced and furthered by the consolidation of the Agricultural College and the Florida University, under the name of the University of Florida and Agricultural College, and that we recommend the same."

In the catalogue of the Agricultural College for the following year, the statement that Dr. Kost is "Chancellor of the University" is dropped; but the resolution quoted above is again printed. The following year the resolution also disappears; and the idea therein contained seems to have become quiescent.

About this time (*i. e.* in 1887), in accordance with the Act of Congress known as the Hatch Act, the Florida Agricultural Experiment Station was established in connection with the State Agricultural College, and three years later the Agricultural College became a beneficiary of the Morrill Act. The former act provides the Agricultural Experiment Station with an income from the National Government of $15,000 per year; while the Morrill Act affords the College an annual income of $12,500. The expenditure of both these sums is carefully restricted by the Act of Congress which provides them and which specifies in each case the purpose for which they may be employed.

As regards the name of the institution, matters continued in this condition until 1903. In that year the Legislature passed

"An Act Changing the Name of the Florida Agricultural College." The title of University had never been assumed by the institution at Tallahassee under the provisions of the act of 1885; and in 1903 that act was repealed, and the title was transferred to the Agricultural College. The act of 1903 reads as follows: "*Be It Enacted by the Legislature of the State of Florida*:

"*Section* 1. That the Florida Agricultural College as at present defined by law be, and is hereby changed to and shall be known as, the University of Florida.

"*Sec* 2. Any law inconsistent herewith be and the same is hereby repealed.

"*Sec.* 3. This act to take effect upon its passage and approval by the Governor." (Approved April 30, 1903.)

In accordance with this act, the then Agricultural College at once assumed the title of the University of Florida.

The University of Florida existed for two years. By an act of the Legislature of 1904-05 (known as the "Buckman Bill"), this institution, together with the Florida State College at Tallahassee, the Normal School at DeFuniak Springs, the East Florida Seminary at Gainesville, the South Florida College at Bartow, and the Agricultural Institute in Osceola county was abolished. In their stead, this act ordains:

"*Section* 12. That there shall be established, and there is hereby created the following institutions of higher education in this State, to-wit: One University to be known as the 'University of the State of Florida,' and one Female Seminary to be known as the 'Florida Female College.'"

For their management, it provides:

"*Sec.* 13. That there is hereby created a 'Board of Control' which shall consist of five citizens of this State who shall be ap-

pointed by the Governor and their terms of office shall be for four years, except that, of the first board appointed under this act, two members thereof shall be appointed for the term of two years and three members thereof shall be appointed for the term of four years."

The University of the State of Florida, thus established, began its scholastic work in September, 1905.

Location.—Acting under a provision of the Buckman Bill, to-wit:

"*Section* 16. The Governor, as President of the State Board of Education, shall cause a meeting of both of said boards to be held in joint session at the capital, and at said meeting shall determine the place of location of the University of the State of Florida, etc."

The State Board of Education and the Board of Control in joint session, on the sixth day of July, 1905, selected the town of GAINESVILLE as the location for the new institution.

For the scholastic year 1905-06, the work of the University was carried on at Lake City on the campus of the former University of Florida, while buildings were in process of erection for its accommodation at Gainesville. The University will move into these buildings during the summer of 1906, and the work of the Institution will thereafter be conducted at Gainesville.

Grounds and Buildings.—The domain of the University comprises five hundred and twenty-seven acres, situated in the western extremity of the town, sufficiently removed from the business quarter to avoid its distracting influences, yet near enough to be reached quickly in case of necessity. Of this tract, about eighty acres are devoted to a campus, a drill ground and the tennis courts. The remainder of the land will be utilized for experimental purposes and a farm.

The buildings for the coming year will be three in number, a Main Building, a Dormitory, and a Machinery Hall. They will be lighted throughout with electricity, supplied with city water, and furnished with modern improvements.

The *Main Building* will be a brick and concrete structure three stories in height and three hundred feet long by sixty feet wide. It will contain the Lecture Rooms, Laboratories, Library and offices of the University.

The *Dormitory,* a brick and concrete structure of the same style of architecture as the Main Building, will be three stories in height and two hundred feet long by sixty feet wide. It will contain the Assembly Hall, the Dining Hall, and students' rooms.

The *Machinery Hall* will be a brick building sixty feet long by thirty feet wide, in which there is some excellent machinery, and where students are instructed in wood and metal work, drawing, etc.

Endowment.—The income of the University, apart from legislative appropriations, is derived principally from three sources—"The Agricultural College Fund" bonds, yielding an annual interest of about seventy-seven hundred ($7,700) dollars; one-half of the "Morrill Fund," amounting now to twelve thousand five hundred ($12,500) dollars, and the "East Coast Seminary Fund," amounting to about two thousand ($2,000) dollars. The entire income is thus about twenty-two thousand two hundred ($22,200) dollars.

State Appropriations.—The Legislaturs of 1905 appropriated one hundred and fifty thousand ($150,000) dollars for the institutions under the direction of the Board of Control.

Scope.—As the Agricultural College of the State, the scope of the institution was well expressed in Section 4 of the Act of Congress (1862) under which the institution was established:

"The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote a liberal and practical education of the industrial classes in the several pursuits and professions of life."

Now, however, since the Legislature has made the former Agricultural College the University of the State, the scope of the institution must necessarily be enlarged. Without abandoning or weakening the practical courses in agriculture and the mechanic arts alluded to above the University has adopted a much larger scheme, which brings it in line with similar institutions in other States. The details of this enlargement can best be seen in the various courses which the institution now offers to its students, especial attention being called to the Bachelor of Arts Course, and the course in General Science, leading to the Bachelor of Science degree.

Admission.—Applicants may gain admission to the classes of the University by one of the following methods:

I. By satisfactorily completing the work of the Sub-Freshman class in the University.

II. Students from the public high schools or other officially accredited schools or academies, by presenting a certificate which states in detail that the work required for entrance into the desired class has been satisfactorily accomplished.

III. Students from another college or university in good standing, unless "dishonorably dismissed," by presenting a certificate from the institution previously attended. These will be classified according to the ground already covered.

IV. All other students by passing written examinations in the Entrance Requirements. These examinations will be held in June and September of each year on days specified in the University Calendar, both at Gainesville and at such other places as may be arranged by correspondence with the President of the University.

ENTRANCE REQUIREMENTS

Students who do not enter by certificate will be required to pass written entrance examinations on the following subjects:

Mathematics.—In *Arithmetic,* the examination will embrace fractions, percentage, profit and loss, commission, insurance, taxes, duties and customs, stocks and investments, interest, partial payments, discount, equation of payments, and evolution. In *Algebra,* the examination will embrace factoring, highest common factor, least common multiple, fractions, simple equations, inequalities, involution, evolution, and numerical quadratics.

In *Geometry,* all of plane Geometry is required.

English.—(1) *Grammar.* A thorough knowledge of English grammar both in its technical aspects and in its bearings upon speech and writing will be required.

(2) *Rhetoric.* A year's training in any standard High School Rhetoric correlated with work in composition will prepare for this part of the examination. Submission of a properly certified exercise book containing the written work of the preceding year is desirable.

(3) *Literature.* This part of the examination will embrace the English Classics recommended by the Association of Southern Colleges. Preparation will involve, in the first group, a detailed study of the subject matter, form, and structure; in the second group, a general knowledge of contents.

(*a*) *For Careful Study*: Burke's "Speech on Conciliation with America", Macaulay's "Essay on Addison", Macaulay's "Essay on Johnson", Milton's "Minor Poems", Shakspere's "Julius Cæsar".

(*b*) *For General Reading*: Addison's "Sir Roger de Coverley Papers", Coleridge's "Ancient Mariner", Eliot's "Silas Marner", Irving's "Life of Goldsmith", Lowell's "Vision of Sir Launfal", Scott's "Ivanhoe", Scott's "Lady of the Lake", Shakspere's "Macbeth", "Merchant of Venice", Tennyson's "Gareth and Lynette", "Launcelot and Elaine", and "The Passing of Arthur".

No candidate will be accepted in English whose work is notably defective in point of spelling, punctuation, idiom, or division into paragraphs.

Latin.—Three full years' work at least in this study is required. The student should have completed some Beginner's Latin Book such as Collar and Daniels', Harkness' Easy Method, or a similar work. In addition he should have read four books of Cæsar's Gallic War, or its equivalent, and two orations of Cicero. After 1906 four orations of Cicero will be required.

This requirement does not apply to students intending to take the Agricultural or the Engineering courses.

History.—Two years' work in this subject is required, equivalent to the work done through the eleventh grade of the Public Schools.

Elementary Science.—A year's work in either Physics, Chemistry, or Zoology and Botany must be offered by those students who do not offer Latin. *Effective September,* 1907.

In all cases "a year's work" represents five hours of recitation work per week for the entire school term. A student who is deficient in not more than one of the subjects required for entrance may be admitted with his regular class upon recom-

mendation of the Committee on Entrance Requirements, said condition to be removed during the first two years of his college course.

Special Students.—Students who may desire to take special courses will be allowed, upon recommendation of the Committee on Courses and Degrees, to take those classes for which they may be prepared. Such students will be subject to all the laws and regulations of the University. In no case will these special courses lead to a regular degree; but a certificate, showing the work done, may be given at the discretion of the head of the department. In the case of minor students entering the University, parents or guardians are earnestly advised to insist upon one of the regular courses being pursued. No student shall take less than 15 hours work per week.

Examinations.—Promotion from class to class, and final graduation, are determined by the regular semi-annual examinations in combination with the class standing for the year. No student will be promoted to the next higher class in any subject whose grade, thus determined, falls below 60 per cent.; and any student who fails in more than 40 per cent. of his required work for any given year will be required to take the work of that year again.

No student will be permitted to take the work of the Junior class until all the work of his Freshman year shall have been satisfactorily accomplished; and no student may enter the Senior class until he has, in like manner, completed all the work of his Sophomore year.

The cases of special students will be dealt with by the proper Committee on Courses and Degrees.

Courses and Degrees.—The University offers five courses leading to the Bachelor's Degree. Of these, one is in the main devoted to the study of language and literature and leads to the

Degree of Bachelor of Arts; a second, devoted to the study of general science, leads to the Degree of Bachelor of Science; a third, devoted to the study of engineering, leads to the Degree of Bachelor of Science and Engineering (Mechanical, Civil or Electrical); a fourth, devoted to the study of agriculture and horticulture, leads to the Degree of Bachelor of Science in Agriculture; a fifth, devoted largely to the study of pedagogy, leads to the Degree of Bachelor of Pedagogy. The usual time for the completion of any one of these courses is four years.

In addition to these full courses the University offers a three-year Normal Course, and special courses in Agriculture and Mechanic Arts requiring two years for their completion.

In addition to these undergraduate courses, the University offers Graduate courses leading to the Master's degree in either Arts or Science. The degree of Master of Arts will be conferred upon students who have completed the course leading to the Bachelor of Arts degree in this institution, or in an institution of like standing, and who shall satisfactorily complete one year of resident work (12 hours per week) in this institution. Six hours of this work must be in one subject and of a grade higher than any offered for the A. B. degree in that subject; the other six hours are to be determined and distributed by the Professor in charge of the department in which the major subject is selected. The requirements for the degree of Master of Science, which follows the degree of Bachelor of Science, are similar to those for the degree of Master of Arts.

Certificates.—A certificate of proficiency will be given to those who satisfactorily complete the prescribed short courses in Mechanic Arts and Agriculture.

Honors and Medals.—The members of the Senior Class who make the highest and next highest averages in all their studies, during the whole period of their contemporaneous work, shall

receive the First and Second Honors respectively in their class. The recipient of the First Honor shall deliver the Valedictory at Commencement; the recipient of the Second Honor the Salutatory.

Medals are offered in the University (1) For the best drilled man in the whole batallion; (2) For the best declaimer in the Freshman and Sophomore Classes; (3) For the best original oration in the Junior Class; (4) For the best original oration in the Senior Class. These contests are all settled in public competition at Commencement. The speakers are limited to four from each class, selected by the faculty.

Expenses.—*Tuition.*—No tuition is charged to students whose home is in Florida. All other students will be required to pay a tuition fee of twenty ($20) dollars per year.

Registration Fee.—A registration fee of $5 per session will be charged all students, except one scholarship student from each county in Florida.

Room Rent.—Students rooming in the University Dormitory will be charged $1 per month for the rent of a furnished room, and $1.50 per month for heat and light.

Board.—Board in the University Dining Hall will be furnished at a cost of $12.50 per calendar month, payable in advance. No deduction will be made for an absence of less than one week.

Books.—The cost of books depends largely upon the course taken. The cost of required text-books is, in no case, a large item of expense, though in the higher classes the student is encouraged to acquire a few of the standard works in his special course.

Uniform.—All students, except graduate students, are required to provide themselves with a uniform, which is of the best

quality Charlottesville cadet gray, and costs about fifteen ($15) dollars, being much less expensive than citizen's clothing of like quality. The uniform may be worn at all times and is neat and serviceable. In order to minimize the heat of summer, students may be required at that time to furnish themselves with a regulation shirt and hat and two pairs of white duck trousers, obtainable at a slight expense.

Laundry.—Students arrange for their own laundry.

Furniture.—All rooms are partially furnished. The furniture consists of two iron bedsteads and matresses, chiffonier or wardrobe, table, washstand and chairs. The students are required to provide all other articles, including pillows, bedding, washbowl, pitcher, mirror, half curtains, etc.

Cost per Year.—The entire cost of a year's attendance varies for the average student, between one hundred and twenty ($120) and one hundred and fifty ($150) dollars.

Damage Deposit.—In order to secure the University property against damage, the sum of five ($5) dollars must be deposited at registration. Damage known to have been done by any student will be charged to his individual account; all other damages will be prorated among the students.

At the end of the scholastic year this deposit, less the amount deducted, will be returned to the student.

Remittances.—*All remittances should be made to the Auditor, The University of the State of Florida, Gainesville, Fla.*

Student Labor.—While it is impossible to guarantee labor to any student, many of them find an opportunity to work, in the shops and elsewhere, thus paying a portion of their expenses. Exclusive of the prescribed practicums, manual labor for the University is remunerated at rates from six to ten cents per hour according to proficiency. Such work, however, must in no way interfere with the regular University duties.

Government.—The University offers first class advantages to those students who desire a liberal and practical education of a high grade and low cost, and its government is adapted to those who enter with earnestness of purpose to attain this end. Reasonable efforts will be made to lead all students toward this goal; but those who manifest, after a sufficient trial, no tendency to conform to the requirements for diligent work and correct behavior, will be requested to withdraw. The University is neither a reformatory for refractory students nor a suitable place for idlers and triflers, and the atmosphere of morality and studiousness will be maintained.

Furloughs.—No furloughs will be granted during the scholastic year except upon written application *to the President,* from parents or guardian. It is requested that students shall not be taken from their work except in cases of urgent necessity, the loss of valuable time involved and the demoralizing effect of such action being obvious.

Attendance Upon Duties.—No student will be allowed to enter any class or to discontinue any class in which he is enrolled without written permission from the President. Unauthorized action in this respect renders the student liable to suspension.

Students who wilfully absent themselves from classes render themselves liable to suspension without notice.

Students who discontinue their work at the University without obtaining an honorable discharge from the President will appear in the records as dishonorably dismissed.

Residence.—The students are, in general, required to reside in the Dormitories. Upon an application from parents or guardians which meets with the approval and consent of the President of the University, students will be allowed to reside in the town. They will be under the same regulations as are those residing on the campus.

Religious Exercises.—All students are required to attend a daily morning service in the assembly hall, consisting of a selection from the Bible, a prayer and a song. The service is conducted by the members of the faculty.

The University is absolutely non-sectarian, but attendance upon some form of public worship at least once each Sunday is required of every student. The choice of the place of worship rests entirely with the student or parents. The pastors of all churches take an active interest in the spiritual welfare of the students. A letter from the parent or home church, addressed to the pastor or religious body in the town, will call forth especial care and attention to the students in whose behalf it is written.

Religious Organizations.—There is a branch of the Y. M. C. A. in the University, which meets every Sunday. In their meetings, the practical rather than the theoretical phases of Christianity will be freely and candidly talked over, and the students will discuss among themselves the special problems which arise in student life. Members of the faculty, the ministers of the city, and distinguished Christian workers will be frequently invited to address the association. Bible classes are organized in connection with the work.

Christian students, on entering the University, should by all means become identified with these organizations, and parents should counsel and encourage them in so doing. A note of introduction to the president of the organization will cause especial attention to be given a new student..

Literary Societies.—The literary societies, the Jacksonian and the Delphian, are invaluable adjuncts to the educational work of the Univerity. They are conducted entirely by the students and maintain a high level of endeavor. In addition to the required forensics, the students here obtain much practical experience in the conduct of public assemblies. They assimilate knowledge of

parliamentary law, acquire ease and grace of delivery, learn to argue with calmness of thought and courtesy of manner, and become skillful in thinking and in presenting their thought clearly and effectively when facing an audience.

All students are earnestly advised to connect themselves with these societies, and to take a constant and active part in their work.

Library.—The Library consists of about three thousand volumes. Additional books are purchased as rapidly as possible, and the Library is administered in the belief that it exists for the use and benefit of the student body. Consequently, every means is employed to facilitate and encourage their constant use of its resources with as little restriction as is compatible with the proper handling and preservation of the books.

As a designated depository of Federal documents, it is increased each year by valuable governmental publications, and it receives in exchange the bulletins and reports of all agricultural stations in the Union.

In the reading room many of the papers of the State and nation and a good number of literary and general periodicals are always accessible.

Athletics.—It is the policy of the University to foster clean, amateur athletics; but the institution proposes to insist that athletics shall be of the character described. To this end, the following rules and regulations will govern all athletic contests participated in by students of the University:

1. The management of all athletic organizations which are to represent the University in a public capacity out of town must apply to the Committee on Student Organizations for permission, and, in case the request is favorably considered, must file with the President a list of members who are to be absent, not exceeding

the number specified in the request to the committee. Each member on the list will then receive notice from the committee, containing a recommendation that he be excused; such notice is not effective as an excuse until countersigned by the President.

2. No person shall represent the University on any athletic team, either at home or abroad,—

(*a*) If he is not a regularly registered student of the University.

(*b*) If he is on probation, that is, if by vote of the faculty he has been duly notified that a repetition of failure in work, neglect of duty, or breach of discipline, will result in his exclusion from the University.

(*c*) If he has previously represented any other college or university in a given branch of athletics, unless a full year shall have elapsed.

(*d*) If he has previously represented this University, or any other college or university, or both, in a given branch of athletics for four years in the aggregate.

(*e*) If he receives, or has received since September, 1904, any remuneration or consideration of any sort for his services as performer, player, coach, or otherwise, apart from such necessary expense in excess of ordinary expenses, as are actually incurred by him as a member of a college team or of a permanent amateur organization in connection with occasional amateur contests.

This rule excludes any person who competes for money or money prizes, who plays on so-called "Summer nines", or with professional teams, or who directly or indirectly receives remuneration apart from actual expenses as player, coach, trainer, official, or proprietor, or manager, in any athletic exercise or contest.

(*f*) If he is a member of the staff of instruction of the University, even if he be registered as a candidate for a degree.

The application of this rule to the cases of teaching fellows will be left to the Committee on Student Organizations.

(*g*) If he does not secure at the beginning of each season a special certificate of satisfactory physical condition from the University physician and the physical director. Such certificate may be cancelled at any time in case the University physician or the physical director decides that the continuation of training is likely to operate to the physical injury of such student.

3. (*a*) No one shall represent this institution on any baseball or track team who shall have matriculated later than thirty days after the beginning of the second semester.

(*b*) Any person receiving conditions, or making failures, in one-third or more of the subjects in his course shall be disqualified from playing on any athletic team, as aforesaid.

(*c*) *No minor student shall play on any athletic team if his parent, or guardian, indicate, objections in writing to the President of the University.*

4. The selection of all coaches for the University teams shall be subject to the approval of the President.

5. No schedule of games shall be made with other institutions or teams unless approved by the Committee on Student Organizations.

Fraternities.—The University admits fraternities among its student organizations. These organizations are subject to all the rules and regulations of the University, and are under the supervision of the Committee on Student Organizations in the matter of their relations to the University, though, in all their private activities, they are entirely in the hands and control of their members.

Gifts to the University.—The educational facilities of many of the State institutions of the South have been materially in-

creased in recent years by substantial gifts from broad-minded citizens. The University feels confident that the citizens of Florida will not allow their State institution to suffer in this respect. All gifts to the University, of whatever nature or size, will be gratefully received and acknowledged as contributions to the upbuilding of education and culture in the State.

SCHOOLS OF INSTRUCTION

The work of the University is divided into the following Department or Schools:

I. The School of Language and Literature.—This offers all the advantages of a general education, chiefly literary in its nature, to those students who desire to enter the Ministry, the Law, or Politics, or who desire a very broad and thorough general training before they begin to prepare for their technical work. The courses offered cover a very wide range of study, and the principle of group-electives in the upper classes gives the student an opportunity to vary his course to a very considerable extent according to his individual tastes and needs. The regular course covers four years, and leads to the degree of Bachelor of Arts.

II. The General Scientific School.—Which offers the student with a taste or need for Chemistry, Physics, Mathematics, or Natural History, unusual opportunities to devote himself to his chosen subject, and to fit himself either for further technical work along these lines, or for the study of Medicine, Surgery, Pharmacy, as a profession. These courses are of four years' duration, and lead to the degree of Bachelor of Science.

III. The School of Agriculture,—Embracing courses in Agriculture, Horticulture, and kindred subjects, intended for the practical farmer, stock-raiser, and grower of fruits and vegetables. These courses treat both from a theoretical and from a strictly practical point of view all of those subjects about which the farmer or fruit-grower needs information for success in his work,—for example, agricultural chemistry, soils and soil analysis, fertilizers, veterinary science, surveying, rural law, botany, horticulture, forestry, etc. Courses 1 and 2 require four years for their completion, and lead to the degree of Bachelor of

Science in Agriculture; course 3 requires two years and leads to a certificate of proficiency.

IV. The Technological School,—Embracing the courses in

1. Mechanical Engineering,
2. Electrical Engineering,
3. Civil Engineering,
4. Short Course in Mechanic Arts.

These courses are designed for students who desire to give their college work a strictly practical direction, and to prepare immediately for their life work in one of these lines. Every course requires a very large amount of practical work, and the student who successfully completes these courses will be prepared to enter upon his active profession immediately. Courses 1, 2 and 3 extend over four full years, and issue in the degree of Bachelor of Science in Mechanical, Civil, and Electrical Engineering, respectively; course 4 covers two years and leads to a certificate of proficiency.

No Latin or Greek is required in Schools III and IV.

V. The School of Pedagogy.—Instruction in this school is designed exclusively for teachers or for those actually preparing to teach. The work is largely identical with that in the other schools of the University, but professional instruction in Pedagogy is given, and required, throughout the course, and the fact is never lost sight of that this is *a school for teachers.* The completion of the full four years' course entitles the student to the degree of Bachelor of Arts in Pedagogy.

The Summer School.—A regular Summer School of six weeks' duration will be conducted by the faculty of the University. The work will be arranged for teachers who desire better equipment or preparation for State and County Examinations and who cannot attend the regular work of the year in the School of Pedagogy, and for students who expect to apply for admission to the University or other institutions.

The Sub-Freshman Class.—In order that graduates of the Junior High Schools of the State, and others of like standing, to whom Senior High Schools are not accessible, may have the necessary preparation to enter the Freshman Class of the University, one year of work below the Freshman Class will be given in the University in the subjects required for entrance, viz., English, Latin, Mathematics and History. This work will correspond in the main to that of the eleventh grade. (See page 47.)

COURSES OF INSTRUCTION.

LITERARY COURSE.

The following course is prescribed for the Bachelor of Arts degree:

Freshman Year:	*Hours per Week.*
English I	3
Mathematics I	5
Modern Language I or Greek I	5
History I	2
Latin I	3
Drill Regulations	1
	19

Sophomore Year:	*Hours per Week.*
English II	3
Mathematics II *a*	3
Modern Language II, or Greek II	3
History II	3
Latin II	3
Physics I	3
	18

JUNIOR YEAR.

Language Group:	*Hours per Week.*
Chemistry I	3
Latin III, and Greek III, or Modern Language III and Modern Language I, or English III and English V	6
Electives	9
	18

Philosophy Group:	*Hours per Week.*
Chemistry I	3
Philosophy I and Philosophy II, or History III and Political Science I	6
Electives	9
	18

SENIOR YEAR.

Language Group:	*Hours per Week.*	*Philosophy Group*:	*Hours per Week.*
Latin IV, or Greek IV, or Modern Language IV, or Modern Language II, or English IV, or English VI	3	Philosophy III, or Philosophy IV, or History IV, or Political Science III	3
Electives	12	Electives	12
	15		15

GENERAL SCIENCE COURSE.

Freshman Year:	*Hours per Week.*	*Sophomore Year*:	*Hours per Week.*
English I	3	English II	3
Mathematics I	5	Mathematics II *a*	3
Modern Language I	5	Modern Languages II	3
History I	2	Physics I	3
Botany I	3	Chemistry I	3
Drill Regulations	1	Mathematics II *b* and Physics II, or Zoology I and Chemistry II	5
	19		20

JUNIOR YEAR.

Mathematical-Physical Group:	*Hours per Week.*	*Chemical Group*:	*Hours per Week.*
Mathematics III	6	Geology I and II	5
A Second Modern Language	3	Chemistry III, IV and V	8
Electives	9	Electives	6
	18		19

Natural History Group:	*Hours per Week.*
Physiology and Zoology II	3
Geology I and Geology II, or Bacteriology	5
Electives	10
	18

SENIOR YEAR.

Mathematical-Physical Group:	*Hours per Week.*	*Chemical Group*:	*Hours per Week.*
Mathematics IV	3	Chemistry VII	7
Electives	12	Electives	8
	15		15

Natural History Group:	*Hours per Week.*
Biology	5
Electives	10
	15

AGRICULTURAL COURSE.

Freshman Year:	*Hours per Week.*	*Sophomore Year:*	*Hours per Week.*
English I	3	English II	3
Mathematics I	5	Physics I	3
Modern Language I	5	Chemistry I and II	5
Drill Regulations	1	Agriculture II	3
Agriculture I	3	Zoology I	3
Botany I	3	Horticulture I and Zoology II	3
	20		20

JUNIOR YEAR.

Agricultural Group:	*Hours per Week.*	*Horticultural Group:*	*Hours per Week.*
Geology I and Bacteriology I	5	Geology I and Bacteriology I	5
Chemistry III	3	Chemistry III	3
Agriculture III	3	Horticulture II	3
Physiology, Surveying and Botany II	5	Physiology, Surveying and Botany II	5
Elective	3	Elective	3
	19		19

SENIOR YEAR.

Agricultural Group:	*Hours per Week.*	*Horticultural Group:*	*Hours per Week.*
Agriculture V	5	Horticulture	5
Chemistry VIII and Agriculture IV and Veterinary Science	5	Botany III and IV	5
Electives	8	Electives	8
	18		18

ENGINEERING COURSES.

FRESHMAN YEAR.

	Hours per Week.
English I	3
Mathematics I	5
Modern Language I	5
Drill regulations	1
Shop (8)	4
Drawing and Descriptive Geometry	4
	22

SOPHOMORE YEAR.

Mechanical and Electrical Engineering:	Hours per Week.	*Civil Engineering:*	Hours per Week.
English II	3	English II	3
Physics I and II	5	Physics I and II	5
Chemistry I	3	Chemistry I	3
Mathematics II *a* and *b*	6	Mathematics II *a* and *b*	6
Drawing (4)	2	Drawing (4)	2
Shop (8)	4	Surveying (8)	4
	23		23

JUNIOR YEAR.

Mechanical and Electrical Engineering:	Hours per Week.	*Civil Engineering:*	Hours per Week.
Mathematics III	6	Mathematics III	6
Physics III	3	Physics III	3
Mechanics I and Graphic Statics	3	Mechanics I and Graphic Statics	3
Drawing (4)	2	Railroad Engineering	3
Shop (8)	4	Municipal Engineering	3
Elective	3	Surveying (4)	2
	21		20

SENIOR YEAR.

Mechanical Engineering:	*Hours per Week.*	*Electrical Engineering*:	*Hours per Week.*
Mechanics II	5	Mechanics II	5
Mechanics III	3	Steam engines	4
Steam Engines	4	Electrical Engineering	10
Drawing (8)	4		—
Shop (4)	2		19
Elective	3		
	—		
	21		

Civil Engineering:	*Hours per Week.*
Mechanics II	5
Structural Engineering	5
Hydraulics	3
Civil Engineering	6
	—
	19

PEDAGOGICAL COURSE.

Freshman Year:	*Hours per Week.*	*Sophomore Year*:	*Hours per Week.*
English I	3	English II	3
Mathematics I	5	Latin II (or I)	3
Latin I (or A)	3	Zoology I	3
Botany I	3	Chemistry I and II	5
Physics A	5	Pedagogy II	3
Pedagogy I	2	Pedagogy III (or Latin II)	3..
Drill Regulations	1		—
	—		20
	22		

Junior Year:	*Hours per Week.*	*Senior Year*:	*Hours per Week.*
Philosophy I	3	Philosophy II	3
Pedagogy IV	6	Pedagogy V	6
Electives	9	Electives	9
	—		—
	18		18

This course is designed with especial reference to the preparation of teachers for service in the public schools of Florida, and it is believed that those who satisfactorily complete the work through the sophomore year will be well qualified to take the examinations for State certificates.

GENERAL REGULATIONS GOVERNING ELECTIVES.

Upon registration for the junior year, each student shall submit his choice of electives to the committee on courses and degrees.

In the A. B. Course at least nine hours of junior and senior electives must be taken from the two groups in which the major subject does not fall. Of these nine hours, at least three must be taken each year.

In the B. S. Course, and the Pedagogical Course, juniors shall elect not more than two subjects in the language and philosophical groups. Seniors shall elect not less than one subject in the philosophical group, and at least one in the science group.

No student shall elect more than the required number of electives without the approval of the Committee on Courses and Degrees.

In the junior year A. B. Course a modern language may be substituted for either Latin or Greek, with the approval of the Committee on Courses and Degrees.

ELECTIVE GROUPS.

I. Language Group.	*II. Philosophy Group.*	*III. Science Group.*
English,	Psychology,	Mathematics,
Latin,	Ethics,	Astronomy,
Greek,	Logic,	Chemistry,
French,	History,	Physics,
German,	Political Science,	Geology,
Spanish,	Pedagogy,	Zoology,
Italian.	Argumentation.	Botany,
		Physiology,
		Bacteriology,
		Surveying,
		Mechanics,
		Drawing,
		Descriptive Geometry.

SHORT COURSES IN AGRICULTURE, MECHANIC ARTS, AND PEDAGOGY.

The following two-year courses are offered to those who desire brief practical courses in Agriculture and Mechanic Arts:

SHORT COURSE IN AGRICULTURE.

First Year:	*Hours per Week.*	*Second Year*:	*Hours per Week.*
English 1	3	Physiology and Zoology II	3
Botany I	3	Chemistry I	3
Mathematics I *a* and Horticulture I	5	Horticulture II *a* and Chemistry VIII	3
Agriculture I	3	Surveying I and Bacteriology I	3
Agricultural Practice (18)	9	Agriculture II *a* and Agriculture II *b* or Horticulture II *b*	3
Drill Regulations	1	Physics I	3
	24	Agricultural Practice (10)	5
			23

SHORT COURSE IN MECHANIC ARTS.

First Year:	*Hours per Week.*	*Second Year*:	*Hours per Week.*
English I	3	Mathematics II	5
Mathematics I	5	Engineering	5
Drawing and Descriptive Geometry	4	Chemistry I	3
Mechanical Practice (18)	9	Physics I and II	5
Drill Regulations	1	Mechanical Practice (12)	6
	22		24

In all the preceding courses two hours of Laboratory Work, Drawing, Shop and Surveying are reckoned as one hour in estimating the total number of hours in any course.

SHORT COURSE IN PEDAGOGY.

The following three-year course is offered to those who desire a brief practical course in Pedagogy with especial reference to securing county and State certificates. The second and third years are identical with the freshman and sophomore years of the full Pedagogical Course, so that the student completing this course may proceed naturally to the full degree of Bachelor of Arts in Pedagogy:

First Year:	*Hours per Week.*
English A	6
Latin A	6
Mathematics A	6
Special Science	6
Special History	6
Pedagogy A	2
	32

Second Year:	*Hours per Week.*	*Third Year:*	*Hours per Week.*
English I	3	English II	3
Latin I (or A)	3	Latin II (or I)	3
Mathematics I	5	Chemistry I and II	5
Botany I	3	Zoology I	3
Physics A	5	Pedagogy II	3
Pedagogy I	2	Pedagogy III (or Latin II)	3
Drill Regulations	1		—
	—		20
	22		

The first year of this course is intended to qualify the student to pass the examinations required for a first-grade county certificate; while the completion of the third year should prepare the student for a State certificate. The remaining eight may be either taken in examination on entrance, or especially arranged with the approval of the Committee on Courses and Degrees.

The following courses will be offered in the Summer School for 1907. The student who successfully completes any one or more of these courses will be given a certificate stating that fact:

SUMMER COURSES.

ENGLISH, FOUR COURSES.

A Course in Grammar for Teachers;
A Course in Elementary Rhetoric;
A Lecture Course on American Poetry;
A Lecture Course on Tennyson and Browning.

LATIN, THREE COURSES.

A Beginners' Course;
A Course in Caesar for Teachers;
A Course in Vergil for Teachers.

GREEK, ONE COURSE.

A Beginners' Course.

MODERN LANGUAGE, TWO COURSES.

A Beginners' Course in German;
A Beginners' Course in French.

MATHEMATICS, FIVE COURSES.

A Course in Arithmetic for Teachers;
A Course in Algebra;
A Course in Plane Geometry;
A Course in Solid Geometry;
A Course in Plane Trigonometry.

GENERAL SCIENCE, TEN COURSES.

A Course in Psychology for Beginners;
A Lecture Course on Education;
A Course in Physics for Beginners;
A Course in Chemistry for Beginners;
A Course in Analytical Chemistry;
A Course in Physical Geography;
A Course in Physiology;
A Course in Botany;
A Course in Agriculture;
A Course in Zoology.

Most of these classes will meet five times a week throughout the six week's term. In some of them, ten hours per week will be offered.

SUB-FRESHMAN CLASS.

	Hours per Week.
English A	6
Mathematics A	6
Latin A or Special Science	6
History A	3
	21

DEPARTMENTS OF INSTRUCTION.

AGRICULTURE.

PROF. ——,

The department of agriculture is intended to meet the requirements of the acts of Congress creating and endowing colleges in the different States. From these acts it is apparent that recognition of agriculture as a branch of collegiate instruction is a distinctive feature of the institutions founded upon the provisions of the national land-grant act. The following subjects will be offered to students in the Agricultural courses.

Agriculture I*a*.—*Soils and Crops*.—The subjects discussed are the origin, composition, and characteristics of soils; the process of soil formation; special properties of soils; the relations of soils to the production of plants; soil amelioration; tillage; effect of cropping; maintenance and restoration of fertility.

Farm crops, the relation between crop and soil, the crop and atmosphere, and crop adaptation are studied. (*First semester, Freshman year, 3 hours.*)

Agriculture I*b*.—*Fertilizers*.—The various aspects of the subject are: the nature of plant foods; the origin, properties, and uses of fertilizing materials; manures and their effects; relations between fertilizers and individual crops, and the practice of fertiling economy. (*Second semester, Freshman year, 3 hours.*)

Agriculture II*a*.—*Animal Husbandry*.—Principles of stock husbandry; breeding of live-stock; adaptations of breeds, and relations of stock husbandry to general farm economy are considered. (*First semester, Sophomore year, 3 hours.*)

Agriculture II*b*.—*Dairying*.—This includes relations of dairying to farm economy, dairying adaptations of breeds and local-

ities, methods, etc. (*Second semester, Sophomore year, 3 hours.*)

Agriculture III.—*Feeding Farm Animals.*—This course includes the following subjects: Laws of animal nutrition; composition of the animal body; fodders as a source of nutrients; digestion, resorption, circulation, respiration and excretion; formation of muscle, flesh and fat; composition and digestibility of feeding-stuffs, and their preparation and use; feeding for fat, for milk, for work, and for growth. (*Both semesters, Junior year, 3 hours.*)

Agriculture IV.—*Rural Law.*—Such topics as property classification, distinction between classes of property, boundaries, fences, stock laws, taxes, rents, and contracts are treated. (*Second semester, Senior year, 2 hours.*)

Agriculture V. — Advanced course in agronomy. (*Both semesters, Senior year, 5 hours.*)

BOTANY AND HORTICULTURE

PROF. ————,
ASSISTANT PROFESSOR FLOYD

The department is well equipped for carrying on work of instruction. Microscopes and accessories are available for work of investigation. For instruction in Botanical work a good microtome, embedders, apparatus for micro-photography, glassware and apparatus for Physiological Botany and Bacteriology are found in the department.

The library contains a representative collection of works on Botany and Horticulture and allied subjects.

The herbarium contains a representative collection of specimens of Florida plants as well as a large number from other parts of the country.

The cryptogamic herbarium, although not large, contains a good working collection of economic species to which additions are being constantly made.

Material for class work in Botany can be easily obtained at all seasons of the year. The flora found in the vicinity of the College is peculiarly rich both in phanerogamic and cryptogamic plants. In addition material can usually be obtained from the Horticultural grounds, from the greenhouse and from the Agricultural Department.

BOTANY.

Botany Ia.—*Elementary Botany.—Lectures and Laboratory Work.*—This subject embraces the study of morphology of roots, stems, leaves, fruits, and seeds, and terms used in Descriptive Botany. A large part of the work in plant physiology is performed in the greenhouse or in the physiological laboratory. (*Required of all scientific, agricultural and pedagogical students; first semester, Freshman year, 3 hours.*)

Botany Ib.—*Systematic Study of Plants.—Lectures and Laboratory Work.*—Special types are studied, beginning with the simplest, and advancing to the most complex. Field work upon special groups of plants is undertaken during the spring months. (*Required of all scientific, agricultural and pedagogical students; second semester, Freshman year, 3 hours.*)

Botany II. — *History.* — *Lectures and Laboratory Work.*— Structure and development of the tissue of higher plants in relation to their function. (*Required of agricultural students; elective for scientific students in Junior or Senior year; second semester, 5 hours.*)

Botany III. — *Plant Pathology.* — *Lectures and Laboratory Work.*—A study of the nature and cause of plant diseases, including a systematic consideration of parasitic fungi. The theory and prevention of disease, the relation of crops and fungicides,

are considered. (*Required of horticultural students; elective; first semester, Senior year, 5 hours.*)

Botany IV.—*Forestry.*—A course of lectures on the principles of forestry, the influence of forestry on climate, fruit growing, etc., is given. Forest cropping, protection, the use of Florida woods, etc., are taken up. (*Required of horticultural students; elective; second semester, Senior year, 5 hours.*)

Botany V.—*Cryptogamic Botany.* — This course embraces a study of the lower forms of plant life, more especially the fungi. (*Elective for those having taken Botany I. Both semesters, Junior or Senior year, 5 hours.*)

Biological Research.—Students who desire to do additional work in Botany will be assigned special problems or allowed to select some particular line of work in Botany.

BACTERIOLOGY.

Bacteriology I.—*Lectures and Laboratory Work in Principles and Methods.*—This course consists of the preparation of culture media and methods of isolation, measuring, staining and microscopic examination of the more common forms of bacteria. Bacteria causing disease as well as those found in milk, water and soil are studied. Methods of sterilization and disinfection are taken up. (*Required of agricultural students; elective; second semester, Junior year, 5 hours.*)

Bacteriology II.—This course consists principally of laboratory work of a more special nature such as the study of some particular disease organisms or the study and identification of organisms in milk, water or soil. (*Elective for students having had Bacteriology I. First semester, 3 hours.*)

HORTICULTURE.

In Horticultural work the greenhouses are used for instruction, and in addition a small but well equipped laboratory is avail-

able. In the orchard, blocks of peaches, plums, persimmons, pecans, oranges, grapes, and figs are found, affording excellent opportunities for the study of these separate groups of fruits.

Horticulture I.—*Plant Propagation.—Lectures and Laboratory Work.*—In this course instruction is given in the principles of plant multiplication. Students are instructed in the making of cuttings, in budding, grafting, seed testing, transplanting, etc. (*Required of agricultural students; first semseter, Sophomore year,* 3 *hours.*)

Horticulture II*a.* — *Pomology.* — *Lectures and Laboratory Work.*—The work in this course deals with the principles of fruit growing. Particular attention is paid to those fruits which are of commercial importance to the State. The principles underlying the growing of citrus fruits, pineapples, peaches, etc., are thoroughly discussed. (*Required of horticultural students; first semester of Junior year,* 3 *hours.*)

Horticulture II*b.*—*Olericulture.*—The growing of vegetables in Florida is a very important industry. The seasons in which the different vegetables may be grown, cultural methods, irrigation, fertilizing, and marketing, are all covered. Practical work in vegetable growing is also given. (*Required of horticultural students; second semester, Junior year,* 3 *hours.*)

Horticulture III.—*Evolution of Plants.*—Lectures and recitations covering the various phases of evolution as bearing upon our cultivated plants, together with a discussion of the principles of plant breeding and improvement by selection and cross-fertilization. (*Required of horticultural students; both semesters, Senior year,* 5 *hours.*)

Horticultural Reading.—By the time the student has reached the *last half of the Senior year,* he is in a position to do independent work. A well-equipped library enables him to become acquainted with the horticultural writers on various subjects. Un-

der the supervision of the instructor a large portion of his time is given up to reading along certain specified lines.

Investigation.—Throughout the *Senior year* each student in the Horticultural course is required to pursue some line of original research. Every possible assistance is given in the work and the student's time is devoted to some problem agreed upon by the professor in charge.

CHEMISTRY.

PROF. FLINT.

The facilities for instruction in chemistry compare favorably with those of the larger institutions of the South, and are being steadily improved. Besides all necessary glassware and chemicals, the department is equipped with a five horse-power gasoline engine, dynamo, grinding machinery, microscopes, balances, spectroscope, polariscope, and other instruments for special investigation.

COURSES.

Chemistry I.—This course is on general inorganic chemistry. During the first semester, the non-metallic elements are studied, by means of a text-book, lectures and recitations. Special attention is given to the principles underlying chemical union, and the theories and laws which govern the science.

In the second semester the metals and their more important compounds are studied in the same manner. (*Three hours a week throughout the Sophomore year for the B. S. course and Junior year for B. A. courses is required of all students.*)

Chemistry II.—This is a laboratory course in general chemistry. In order to impress the principles of the science upon the minds of the students, they are required to repeat in the labora-

tory many of the experiments seen in the lecture room, taking notes of the same, and writing the chemical reactions as far as possible. Each one is required to perform over a hundred experiments designed to illustrate chemical principles, including the preparation of many of the elements and their most important compounds.

In the second semester the laboratory work is designed to study the reactions of the metals with a view to their classification. During this semester a portion of the time is devoted to a thorough course in dry analysis. (*Two exercises a week throughout the Sophomore year, required of all students in the scientific courses.*)

Chemistry III.—This is a laboratory course in qualitative analysis, in the Junior year. (*Three exercises a week, elective in the A. B. Course.*)

Chemistry IV.—Includes course III with two additional exercises a week in the same line of work. (*Offered as an elective in the Science courses, and required in the chemical course.*)

Chemistry V.—This is a course in organic chemistry which includes lectures and recitations, although a text-book is largely depended upon. In the latter part of the second semester a portion of the time is devoted to organic preparations in the laboratory. A short course of lectures on the subject of metallurgy is given in the latter part of the semester, in which the chemistry involved in the reduction and fabrication of the more useful metals, as iron, copper, zinc, lead and silver, is explained. (*Three hours a week throughout the Junior year, required of students in the Chemical course.*)

Chemistry VI.—This is a laboratory course in quantitative analysis. (*Elective in the Senior year to students in the B. S. courses. Three hours a week.*)

Chemistry VII.—In this course five exercises a week are devoted to laboratory work. During the first semester this is given to quantitative analysis, the exercises being selected with a view to familiarizing the students with the leading quantitative operations involved in the gravimetric, volumetric and electrolytic methods in vogue. As far as possible, the work of each individual is selected to aid especially in the line of work he may wish to pursue in the future, as medicine, pharmacy, analytical chemistry, etc.

During the second semester the laboratory work is still further specialized for each student and is devoted especially to investigation on some one subject, leading to material for a thesis.

During two hours a week a course is given in chemical technology which comprises a consideration of the chemical principles involved in the manufacture, refining and preparation of the leading products of commercial importance. "Thorp's Outlines of Industrial Chemistry" is used as a text, lectures being given occasionally enlarging upon or explaining the subject matter of the book. Among the subjects studied may be mentioned fuels, sulphuric acid, the soda industry, the chlorine industry, fertilizers, cements, glass, pigments, coal tar, mineral oils, soap starch, sugar, fermentation industries, explosives, textile industries, paper, leather, etc. In connection with this visits will be made to such factories and chemical industries as may be accessible.

To those who desire it, a short course during this time is offered in the assaying of gold, silver and lead. (*Seven hours a week throughout the Senior year. Required of students in the Chemical course.*)

Chemistry VIII.—A course of lectures in agricultural chemistry, embracing the chemistry of soils, the atmosphere, plant and animal growth and feeding, fertilizers, dairy products, insecticides, etc. (*Three hours a week for one semester in the Senior year. Required of students in the Agricultural course.*)

CIVIL ENGINEERING.

PROF. BENTON,
ASSISTANT PROFESSOR COX.

Instruction in civil engineering is given by (1) recitations, based on assigned lessons in standard text-books; (2) lectures, designed to supplement text-book instruction; (3) laboratory work, to give the students familiarity with engineering instruments, and with the making of engineering measurements and tests, and (4) field work, in which the student, under guidance of the instructor, carries out work of the same nature as in actual engineering practice. The following courses are required of all civil engineering students; and Surveying is also required of agricultural students, Junior year.

Surveying I.—Class room and field work is given in chain surveying, use of compass and transit, computation of areas, use of level, differential and profile leveling. Theory and use of surveying instruments; land surveying; use of plane table; topographic surveying. (*Required of Sophomores in the Civil Engineering course; one recitation per week and two field exercises of 3 hours each.*)

Surveying II.—Hydrographic surveying; city surveying; measurement of volumes; geodetic surveying; determination of latitude, longitude, and time; cartography. (*Required of Juniors in the Civil Engineering course; 4 hours of field work per week.*)

Railroad Engineering.—Railway location; computation of earthwork; subgrade and track structures; economics of railroad operation. The field work consists of the reconnoissance, preliminary, and location survey, followed by laying out curves and estimating earthwork, track work, and track structures, which would be necessary to build a railroad to connect two points in the neighborhood of the university. The principles underlying

the field work, and the results obtained, are discussed in the class room. (*Required of Juniors in the Civil Engineering course; 3 hours.*)

Municipal Engineering.—Roads and pavements; testing of road materials; sewerage and sewerage disposal; water supply engineering, including computation of rainfall and run-off, methods of collection, storage and distribution. (*Required of Juniors in the Civil Engineering course; two recitations and one practicum of 2 hours.*)

Structural Engineering.—Structural details; bridges; roof trusses; plate girders; masonry structures; arches and stereotomy; dams; foundations; study of the methods of production and of the properties of all the more important materials of construction. (*Required of Seniors in the Civil Engineering course; 5 hours per week.*)

Engineering Laboratory.—The work in the laboratory consists of the use of computing instruments; determination of centers of gravity; testing materials for strength and elasticity; cement testing; testing of beams, columns, and simple structures. (*Required of Seniors in the Civil Engineering course; two exercises per week of 2 hours each.*)

Hydraulics.—Hydrostatics; pressure against walls and dams; strength of pipes; flow through pipes and orifices, and over weirs; fluid friction; flow in open channels; hydraulic machinery; canal construction; improvement of rivers and harbors. The laboratory work consists of hydraulic measurements for the determination of quantity of flow, velocity, pressure, and loss of head in pipes and conduits; testing of meters; study of hydraulic machinery. (*Required of Seniors in the Civil Engineering course; 3 hours.*)

Contracts and Specifications.—A brief course based on Johnson's Engineering Contracts and Specifications. (*Required of Seniors in the Civil Engineering course; 2 hours.*)

Thesis.—Each student is required to make a complete design of some engineering work, with specifications and estimate of cost. (*Senior year; 2 hours per week.*)

ELECTRICAL ENGINEERING.

PROF. BENTON.

The work of the Freshman, Sophomore, and Junior years in this department is the same as the work in Mechanical Engineering for those years. The work of the Senior year is as follows:

Dynamo-Electric Machinery.—The principles of action of direct-current dynamos and motors; calculations of dynamos and motors; determination of characteristic curves; designing of electrical machinery; electrical testing. (*Required of Seniors in Electrical Engineering course; 4 hours.*)

Alternating Currents.—Principles of single phase and polyphase alternating currents; alternating current machinery; theory of the transformer. (*Required of Seniors in Electrical Engineering course; 4 hours.*)

Electric Lighting and Transmission of Power.—Electric lighting; photometry; principles of illumination; design of distributing systems. (*Required of Seniors in Electrical Engineering course; 1 hour.*)

Telegraph and Telephone Engineering.—Designs of telegraph and telephone lines; submarine cables. (*Required of Seniors in Electrical Engineering course; 1 hour.*)

ENGLISH.

PROF. FARR.

English.—The work of the department is designed to meet the requirements for a practical and liberal education, and is regarded both as a necessary auxiliary to the training in technical courses, and as an important factor among the liberalizing studies. The three sides of the subject, Rhetoric, Linguistics, and Literature, are presented as fully as the time allotted will permit. While Rhetoric and Composition are especially stressed in the lower classes, Literary studies in the higher, and linguistic work in electives, still the attempt is made to keep the three view-points before all classes as necessary to a mastery of their native language.

English A.—This course is intended to prepare students who have not had the eleventh grade work of the public schools for entrance into the department. Two hours per week will be devoted to advanced grammar. An elementary Rhetoric and Composition text will be studied. The English Classics required for entrance will be read in class. Constant practice in writing, in daily exercises and weekly themes will be insisted upon. Orthography, orthoepy, and reading will be touched upon as needful. (*Both semesters, Sub-Freshman year;* 6 *hours.*)

English I.—*Composition and Rhetoric.*—This course is designed to train the students in methods of clear and forceful expression. Throughout the year instruction is carried on simultaneously in formal rhetoric, in rhetorical analysis and in theme writing, the constant correlation of the three as methods of approach to the desired goal being kept in view. In addition the Essays of Macaulay are studied throughout the year, and a private reading course is assigned to the individual student. (*Throughout the year for all Freshmen,* 3 *hours.*)

English II. — *History of Language and Literature.* — The course is intended to furnish the student an outline of the historical development of the English language and literature both as a cultural end desirable in itself and as giving the proper perspective for future study of literary epochs and types. A text with selections from the important prose writers and poets, a course of lectures covering the history of the language and literature, a manual to be used for reference, frequent reports on interesting phases of the subject from the individual students, and a constant use of the University library, are the methods employed in instruction. Tennyson's Idylls of the King and Browning's Blot in the 'Scutcheon are critically studied in class, and a private reading course is assigned to each student. (*Throughout the year for all Sophomores,* 3 *hours.*)

English III*a.*—*Milton and the Epic.*—This course centers in a study of the Paradise Lost, around which are grouped studies in the Age of Milton and in the Epic as a type in Comparative Literature. The first four books of the poem are read in class. Written reviews on the remaining books alternate each week with essays from the student and lectures by the instructor on various phases of the subject. A reading course in the minor poets of the age and in the English translation of the great Epics is assigned to each student. (*Elective; first semester of Junior year,* 3 *hours.*)

English III*b.* — *Shakspere and the Drama.* — This course follows the above method. Three of the Shaksperian plays are read in class. On eight others a written review is held each fortnight and on the alternate week essays are written and lectures are given by the instructor. Readings in the English Drama from the Cycle plays to contemporary production are assigned to the students. (*Elective; second semester of Junior year,* 3 *hours.*)

English IV*a.*—*The English Novel.*—In recognition of the fact that a large part of the reading of most Americans is in this

line a course in the Novel is offered. This subject is studied in suitable texts from the two sides of chronological development and of technique; and the student reads a list of novels chosen to illustrate chronology and variety of species, analyzes minutely one novel from the technical side, masters the entire work and life of one novelist, and compares closely a novel and a dramatized version of it. It is hoped that the student may be so grounded in the classics and his taste and judgment so trained that his reading in this class of literature may not become mere intellectual dissipation. (*Elective; first semester of Senior year, 3 hours.*)

English IV*b*.—*The Romantic Revival.*—This course is planned as a study in literary movement. The causes and forces which underlie the movement, its phenomena and the authors and works which exhibit them, and a comparison with other movements in literature will be considered. The work of Prof. Beers will be used as a basis and the student will be led, by means of extensive reading, by investigation and essays and by lectures on the wider ranges of the subjects, to realize the truth of his statements. (*Elective; second semester of Senior year, 3 hours.*)

English V.—*Anglo-Saxon Grammar and Reading.*—The student is drilled in the forms of the early language and an elementary view of their relations to the other members of the Aryan family and their development into Modern English are given. The texts in Bright's Anglo-Saxon Reader are studied and Cook's edition of the Judith is read. (*Elective for Juniors, both semesters, 3 hours.*)

English VI.—*Chaucer and the Middle English Grammar.*—During the first semester the works of Chaucer are read in and out of class. The pronunciation, grammatical forms, scansion, condition of text, analogues and sources are closely examined. During the second semester, Morris and Sheats' Specimens, Part

II, is studied in connection with informal lectures on Middle English viewed as developing from Anglo-Saxon into Modern English. (*Elective for Seniors who have taken English V; both semesters,* 3 *hours.*)

HISTORY AND POLITICAL SCIENCE.

PROF. THOMAS.

Since history is so comprehensive, it is impossible to cover the whole field in a few courses. In his preparatory work the student is supposed to have traced in outline the growth of nationalities; in the following courses the main emphasis will be laid upon the growth of political institutions and the development of civil and political liberty, but some attention will be given incidentally to economic and social conditions. Considerable library reading will be required in all classes and occasionally topics will be assigned to individual students for special reports. In the higher classes the students will be expected to do more investigation work for training in the habit of research and independent thinking.

History A.—*Mediaeval and Modern Europe.*—This course covers the period from the dissolution of the Roman Empire to modern times. Special attention will be given to Monasticism, the growth of the Papacy, Feudalism, Absolutism, and the rise of the National States, the Renaissance, the Reformation, and the political reforms in England. Text-book: Robinson's History of Western Europe, with collateral reading and supplementary lectures. (*Both semesters, Sub-Freshman class,* 3 *hours.*)

History I.—*England and America in the 17th and 18th Centuries.*—After a rapid survey of the period of discovery and of England in the 16th century, the history of England and her colonies in the 17th and 18th centuries will then be taken up. The colonies will be treated as an offshoot of the English nation developing their institutions under different conditions. Special

emphasis will be laid upon the attempts at imperial control and the resulting separation. Text-books and supplementary reading. (*Required of A. B. and General Science students; both semesters, Freshman year,* 2 *hours.*)

History II.—*Political and Constitutional History of the United States.*—The whole period of our history since the Revolution will be covered, but special attention will be given to certain subjects. Chief of these will be the decline of the Confederation, the formation and adoption of the Constitution, the division into national and States' rights parties, expansion, slavery debates, secession, Reconstruction and its undoing, tariff and financial legislation, the war with Spain and its results. The American History series will be used as texts, but much library work will be required. (*Required of A. B. students; both semesters, Sophomore year,* 3 *hours.*)

History III.—*The French Revolution and Europe in the Nineteenth Century.*—A careful study is made of the social and financial condition of France before the Revolution and of the influence of the Philosophers upon the course of events. The career of Napoleon is studied chiefly for such of his work as had a permanent influence. The Congress of Vienna, the subsequent revolutions, the unification of Italy and of Germany, the Eastern Question, and the partition of Africa receive due attention. Text-books: Lowell's Eve of the French Revolution, Mathew's French Revolution and another to be announced later. (*Junior or Senior elective; both semesters,* 3 *hours.*)

History IVa.—*The Revolution and the Convention of* 1787.—Careful study of the Continental Congress, the Confederation and the causes of its failure, and the formation and adoption of the Constitution. Mainly library work and lectures. (*Open to Seniors or Graduates who have had at least two years' work in history; first semester,* 3 *hours.*)

History IV*b.*—*Civil War and Reconstruction.*—Secession and the formation of the Confederacy; attempts at compromise; governmental activity in the Confederacy as well as in the United States; civil liberty North and South during the war; Presidential and Congressional Reconstruction. (*Prerequisites same as in preceding course; second semester,* 3 *hours.*)

History V.—*American Diplomacy.*—A lecture and seminar course in the history of American Diplomacy. The library facilities for this work are reasonably good. (*Prerequisite, International Law; both semesters,* 1 *or* 2 *hours by arrangement.*)

The first two of the following courses are intended to serve as introductory to the study of the economic and social problems of the day. The others have been arranged with special reference to the needs of those who expect to follow the law or enter politics.

Economics I.—An elementary course, introducing the student to the general theory of economics and suggesting applications to present day problems. (*Junior or Senior elective; first semester,* 3 *hours.*)

Sociology I.—An introductory course dealing with such questions as the origin of society, the causes and modes of social activity, the origin and evolution of the family and the State. Some of the present day problems will also be taken up, such as labor legislation, the tramp problem, the treatment of criminals, especially juvenile offenders, and the care of the poor and aged. (*Junior or Senior elective; second semester,* 3 *hours.*)

Public Law I.—*Comparative Constitutions.*—A study of the governments of the principal European and American States with special reference to their constitutions. The work will be based on the texts of the constitutions and on Burgess and Wilson. Some attention will also be given to the main prin-

ciples of political science. (*Junior or Senior electives; first semester, 3 hours.*)

Public Law II.—*International Law.*—Davis's Elements of International Law will be used as a text, but much emphasis will be laid upon the study of cases and of diplomatic papers. (*Junior or Senior elective; second semester, 3 hours.*)

Public Law III.—*Principles of Constitutional Law (U. S.)*—Cooley will be used as a text, but much time will be devoted to the study and analysis of cases. (*Open to graduates; first semester; 3 hours.*)

Public Law IV.—*Administrative Law.*—Goodnow, with cases. This course is well adapted to the needs of those who expect to enter the public service. (*Open to graduates; second semester, 3 hours.*)

Argumentation and Debate I.—This course is designed to train students in the careful analysis of subjects and the logical arrangement of material. (*Junior or Senior elective; 2 or 3 hours.*)

LATIN AND GREEK.

PROF. ANDERSON.

The study of the Classics contributes largely to general culture. In addition to the recognized and peculiar disciplinary value of such studies, and their conspicuous service in cultivating the literary sense and developing literary taste, they have a more immediate value and office as aids to the comprehension and interpretation of modern languages and literatures. A thorough study and a full understanding of any modern language, especially the Romance Languages and our own tongue, demand a

considerable preliminary acquaintance with Latin and Greek. Thus from two points of view, that of their own intrinsic beauty and value as culture studies, and that of subsidiary aids to the study of other and modern languages, Latin and Greek command our attention, and call for a large place in any curriculum which proposes to issue in a liberal education.

The following courses are offered for the coming year:

LATIN.

Latin A.—Four books of Cæsar's Gallic War and four Orations of Cicero will be read in class. The grammar will be studied throughout the year; and weekly exercise in prose composition will be required. (*Both semesters, Sub-Freshman class, 6 hours.*)

Latin I.—Livy, books XXI and XXII or other selections; Ovid, about 2,000 verses selected from his various works but mainly from the Metamorphoses; Virgil, Aeneid, books I-IV; Versification, with especial reference to the Dactylic Hexameter and Pentameter; weekly exercies in Prose Composition; Grammar. For the session 1906-7 several orations of Cicero will be substituted for the Livy. (*Required for A. B. students; both semesters, Freshman year, 3 hours.*)

Latin II.—Selections from the Letters of Cicero and Pliny; selections from the Satires, Epistles, Odes, and Epodes of Horace with a study of the Horatian Metres; weekly exercises in Prose Composition. (*Required for A. B. students; both semesters, Sophomore year, 3 hours.*)

Latin III.—Juvenal's Satires with some omissions; Tacitus, parts of the Histories or Annals; Selections from Catullus, Tibullus, and Propertius. (*Elective; both semesters, Junior year, 3 hours.*)

Latin IV.—Several plays of Plautus and Terence; Tacitus, Germania or Agricola; selections from Seneca, Gellius and Quintilian. (*Elective; both semesters, Senior year, 3 hours.*)

Latin V*b*.—History of the Roman Literature, preceded by a short study of Roman Life and Customs. (*Elective; second semester, 2 hours.*)

Greek I.—The forms and most important principles of the syntax will be learned from a beginner's book. The student will have numerous exercises, partly oral, partly written, and some practice in conversation and sight-reading. Then one book of Xenophon's Anabasis will be read with exercises in Prose Composition and study of the Grammar. (*Elective; 5 hours.*)

Greek II.—Xenophon's Anabasis, books II, III and IV; Selections from Lucian and the easier dialogues of Plato; sight translation; Prose Composition; Grammar. (*Elective; 3 hours.*)

Greek III.—Select orations of Lysias or other Attic orators, with informal talks on Athenian laws and customs; parts of the Iliad and Odyssey of Homer; Prosody; Prose Composition. (*Elective; 3 hours.*)

Greek IV.—Selections from the Greek historians, especially Herodotus and Thucydides; selections from the Greek dramatists, especially Euripides and Sophocles; selections from the lyric fragments of Alcaeus, Sappho, etc. (*Elective; 3 hours.*)

Greek V*a*.—A study of the history of Greek Literature preceded by a short study of Greek Life and Customs. A knowledge of the Greek language is highly desirable but is not required for this course. (*Elective; first semester, 2 hours.*)

MATHEMATICS AND ASTRONOMY.

PROF. SCHMIDT.

The work in the department of Mathematics is planned with a threefold purpose in view:

1. For students who intend to *specialize* in Mathematics it provides the training necessary for pursuing their work. By offering different advanced courses in different years, a comparatively large number of courses is made available. Still it should be remembered that they give a necessarily one-sided sketch rather than a complete picture of modern Mathematics.

2. To those who need Mathematics as an *instrument* it offers opportunities to become familiar with this instrument. The applications of Calculus not only to Physics, Chemistry, Engineering, etc., but even to such seemingly remote realms as Psychology and Political Economy, makes it advisable that this class should continue the study of Mathematics at least as far as Calculus.

3. To others it gives logical training in Analysis and Proof, introduces them to that scientific method par excellence of the *Hypothesis,* and introduces the idea of a deductive system in its classical form. Elementary (Euclidean) Geometry is studied with this purpose in view by all members of the Freshman class.

The following courses are offered each year:

Mathematics A.—Plane Geometry and Algebra. Text books: Phillips and Fisher, Elements of Geometry. Hall and Knight, College Algebra. (6 *hours per week through the Sub-Freshman year.*)

Mathematics I.—Solid Geometry, Plane and Spherical Trigonometry. Text-books: Phillips and Fisher, Elements of Geometry. Wentworth, Plane and Spherical Trigonometry. (*Required of all Freshmen; both semesters,* 5 *hours.*)

Mathematics II*a.*—Algebra and Introduction to Infinite Analysis. Text-book: Hall and Knight, Higher Algebra, supplemented by informal lectures. (*Required of all except Pedagogical Sophomores; both semesters,* 3 *hours.*)

Mathematics II*b*.—Introduction to Analytic Geometry. Smith and Gale, Introduction to Analytic Geometry. (*Required of Engineering students; elective; both semesters,* 3 *hours.*)

Mathematics III*a*.—Differential Calculus. Text-book: MacMahon and Snyder, Differential Calculus. (*Elective; both semesters,* 3 *hours.*)

Mathematics III*b*.—Integral Calculus. Text-book: Murray, Integral Calculus. (*Elective; both semesters,* 3 *hours.*)

For 1906-07 the following advanced courses will be offered:

Mathematics IV*a*.—The Theory of Equations. (*Elective; first semester,* 3 *hours.*)

Mathematics IV*b*.—Introduction to Differential Equations. First course. (*Elective; second semester,* 3 *hours.*)

Mathematics V.—Advanced Calculus with Applications to Geometry. The conditions of integrability and the successive extensions of the definite Integral will be discussed in the first part of the course; the application of Integral Calculus to the Theory of Envelopes, Contact, Curvature and Torsion in the second part. (*Elective; both semesters,* 3 *hours.*)

Mathematics VI.—Advanced Analytical Geometry. The first part of the course will discuss modern methods in Analytical Geometry (method of abridged notation: trilinear and tangential coordinates and their application to the investigation of harmonical properties of points and lines. The second part of the course will treat of Analytical Geometry of Space, with special emphasis on Algebraical twisted courses. (*Elective; both semesters,* 3 *hours.*)

ASTRONOMY.

Astronomy I.—In connection with the Department of Mathematics a course in General Astronomy will be offered, consisting of lectures and recitations, with practical exercises. No knowledge of advanced mathematics is presupposed. Textbooks: Young, Manual of Astronomy; Willson, Laboratory Astronomy. (*Elective; both semesters, 3 hours.*)

MECHANICAL ENGINEERING.

PROF. HOCHSTRASSER.

In this department practice and theory go hand in hand. A graduate's value is not based on what he knows, but on what he can do.

The following courses are offered for the coming year:

MECHANICS.

Mechanics I.—*A Course in Kinematics of Machinery.*—In Kinematics the relation of moving parts of machines is investigated. This includes link work, belts, gears, trains of mechanism, etc. The text is supplemented by the use of an extensive collection of models and a thorough course in drawing the various forms of teeth, etc.

On the completion of Kinematics, *Graphic Statics* is taken up. This work is planned with special reference to the requirements of engineering students and the development of the general theory is limited to such principals and methods as are practically useful. (*Required of Engineering students; both semesters, Junior year, 3 hours.*)

Mechanics II.—*A Course in Analytic and Applied Mechanics.* The various forces in statics and dynamics are studied and a wide range of problems in their practical application to machines is

solved. (*Required of Engineering students; both semesters, Senior year, 5 hours.*)

Mechanics III.—*A Course in Strength of Materials and Materials Used in Engineering Structures.*—This will comprise an investigation, in class room and laboratory, of the strength of engineering structures, the analysis of stresses in trusses; bursting strength of boilers, etc., and the mechanical properties and treatment of iron, steel, timber and cements. (*Required of Engineering students; both semesters, Senior year, 3 hours.*)

Steam Engineering.—This course includes the study of *Thermodynamics* and its relation to the gas, gasoline and steam engine; the losses attendant upon the conversion of heat into work and means of partially preventing same; a study of the different valve motions; the practical use of the steam engine indicator; the construction of theoretical cards for compound engines; steam boilers, etc. (*Required of Engineering students; both semesters, Senior year, 4 hours.*)

Contracts and Specifications.—The course is to enable the student to interpret contracts and specifications, and to give him a knowledge of what they should consist. (*Elective for Engineering students; both semesters, Senior year, 3 hours.*)

DRAWING.

The course in Drawing requires four years for completion. Those who enter the sub-freshman class have a preliminary year of free hand lettering and sketching.

During the Freshman year a text-book, "Tracy's Introductory Course," is used, and work with the instruments taken up. The essentials of Descriptive Geometry are clearly brought out and at the same time accuracy and neatness in drawing are required.

During the Sophomore year Machine Drawing is taken up.

In the Junior and Senior years advanced Drawing and Machine Design occupy the student's attention. Both are made to harmonize with the theoretical instruction going on at the same time, and during the Senior year particular stress is laid on Machine design and a large amount of independent investigation is required. (*Required of Engineering students; 4 hours, counting as 2, in Freshman and Sophomore, and 8 hours, counting as 4, in Junior and Senior years; both semesters in all classes.*)

Descriptive Geometry.—No attempt is made to apply the principles to machine drawing, but to establish them. To this end a great variety of problems are taken up for discussion and proof, and the student is thereby enabled to make a more intelligent application of the principles in the advanced work. (*Required of Engineering students; second semester, Freshman year, 4 hours.*)

Shop Work.—A systematic course of practical work, including carpentry, wood-turning, pattern making, moulding, foundry work, blacksmithing, bench work in iron, and machine work, is required of Mechanical Engineering students. No attempt is made to teach a trade, in any sense of the word; the time afforded would not permit of this, but each lesson is intended to bring out some one of the underlying principles of the subject taught and impress it firmly on the student's mind, so that when he has completed the course he will have a general knowledge of those trades with which the engineer has to deal.

A series of lectures is given as the work progresses, and a certain amount of reading of technical and trade publications is required.

Shop Equipment.—The wood shop is provided with twenty benches and forty sets of tools for bench work in wood, a rip saw, band saw, jig saw, planer, grindstone, fourteen wood lathes and a number of small foot-power machines. The foundry is

equipped with sets of moulding tools, benches, flasks, moulding sand, etc. A brass furnace is in place, and a cupola for melting iron has recently been installed. The tin shop is provided with gas furnaces and soldering irons for students, and is well supplied with snips, stakes, flangers, and blowpipes. The blacksmith shop contains power blast forges, and one hand forge, heavy anvils, sledges, hammers, tongs, fullers, swages, etc. The machine shop has an 18-inch Cady and an 11-inch Seneca Falls lathe, a drill press, emery wheel, grindstone, and a Gray planer. A No. 1 B. & S. Universal milling machine and a Springfield shaper together with a small Barnes lathe, a complete airbrake equipment, and the usual benches and vices for iron work complete the list of the larger tools.

Power is furnished by a Backcock and Wilcox boiler in connection with an automatic cut-off high speed engine. (*Required of Engineering students, 8 hours, counting as 4, throughout the four years' course.*)

MODERN LANGUAGES.

PROF. CROW.

French, German, Italian and Spanish are the subjects taught in this department. Extensive courses of reading, in and out of class, frequent exercises, oral and written, and studies in the Literature and Languages of the respective countries form the chief features of instruction. Carefully prepared English abstracts of nearly all the parallel reading is required.

Authors and text-books vary from year to year. Though the classics are not neglected, special attention is paid to the literatures of the nineteenth century.

FRENCH.

French I.—*Elementary Course.*—Drill in pronunciation and important grammatical forms, elementary syntax, dictation, daily written exercises, memorizing of vocabularies and short poems, translation.

Text-books: Frazer and Squair's French Grammar; Guerber's "Contes et Légendes," Parts I and II; "Quatre Contes" from Mérimée. (*Modern Language elective for Freshmen; both semesters, 5 hours.*)

French II.—*Intermediate Course.*—Work of elementary course continued, advanced grammar including syntax, prose composition, translation of intermediate and advanced texts, sight reading, parallel.

Text-books: Frazer and Squair's French Grammar; Gervais's "Un Cas de Conscience"; Halévy's "L'Abbé Constantin"; Erckmann-Chatrian's "Le Conscrit de 1813"; Sand's "La Mare au Diable"; France's "Le Crime de Sylvestre Bounard." (*Modern Language elective for Sophomores; both semesters, 3 hours.*)

French III.—*Advanced Course.*—Syntax, stylistic, composition, history of French Literature, selections from the dramatists or novelists as class may decide. (*Elective; both semesters, 3 hours.*)

French IV.—*Old French.*—A course will be offered in Romance Philology open only to those who have taken French III and Latin II. (*Elective; both semesters, 3 hours.*)

GERMAN.

German I.—*Elementary Course.*—Drill in pronunciation and important grammatical forms, elementary syntax, dictation, daily written exercises, memorizing of vocabularies and short poems, translation.

Text-books: Joynes-Meissner's German Grammar; Guerber's "Märchen und Erzählungen," Parts I and II; Volkmann's

"Kleine Geschichten." (*Modern Language elective for Freshman; elective; both semesters, 5 hours.*)

German II. — *Intermediate Course.* — Work of elementary course continued, advanced grammar including syntax, prose composition, translation of intermediate texts, sight reading, parallel.

Text-books: Joynes-Meissner's German Grammar; Gerstäcker's "Germelshausen," "Irrfahrten"; Hauff's "Das Kalte Herz"; Storm's "Immensee." (*Modern Language elective for Sophomores; elective; both semesters, 3 hours.*)

German III.—*Advanced Course.*—Syntax, stylistic, composition, history of German Literature, selections from the dramatists or novelists. (*Elective; both semesters, 3 hours.*)

German IV.—*Scientific Reading Course.*—A course in reading scientific German will be offered to students who have completed German II. The nature of the course will depend largely upon the needs of the students taking it. (*Elective; both semesters, 3 hours.*)

German V.—During the session of 1905-6 a club was organized to speak German. This club met twice weekly.

German VI.—Courses will be offered in Middle and Old High German open only to those who have taken German III. (*Elective; both semesters, 3 hours.*)

ITALIAN.

Italian I.—*Elementary.*—To students desiring to specialize in the Romance Languages, an elementary course in Italian is offered. As students who elect this course will already have some knowledge of formal grammar and of Latin and French, rapid progress will be made. (*Elective; both semesters, 3 hours.*)

SPANISH.

Spanish I. — *Elementary Course.* — Drill on pronunciation and important grammatical forms, elementary syntax, dictation,

daily written exercises, memorizing of vocabularies and short poems, translation.

Text-books: Hills and Ford's Spanish Grammar; Ramsey's Elementary Spanish Reader; Carter and Malloy's "Cuentos Castellaños." (*Modern Language elective for Freshman; elective; both semesters, 5 hours.*)

Spanish II. — *Intermediate Course.* — Work of elementary course continued, advanced grammar including syntax, prose composition, translation of selections from Alarcón and Galdos, parallel.

Text-books: Hills and Ford's Spanish Grammar; Alarcón's "El Capitán Veneno," "El Final de Nonna," Galdo's "Doña Perfecta, Electra." (*Modern Language elective for Sophomores; elective; both semesters, 3 hours.*)

Spanish III.—*Conversation.*—During the session of 1905-6 a club was organized to speak Spanish. This club met twice weekly.

PEDAGOGY.

PROF. YOCUM.

Pedagogy I.—*Psychology.*—This is an elementary course designed to set forth the main phenomena of mental life, and furnish the student with the concepts and terms which will constantly recur in his further study. The text-book prescribed from time to time by the State Superintendent of Education will be used, but the study will be conducted from a syllabus, and ample references will be made to the standard treatises used in American schools. Professor Ladd's Outline of Descriptive

Psychology will be most freely consulted. (*Required of Freshman in the Pedagogical Course; both semesters, 2 hours.*)

Pedagogy II.—*Methods.*—This course will aim to teach the accepted principles of instruction, and general and special methods. White's Art of Teaching, De Garmo's Essentials, Lange's Appreciation, McMurray's various treaties, Tate's Philosophy of Education, and other accessible English authors will be drawn upon. The subject will be presented in a syllabus. Observation of methods will be made in the public schools, where it may be found profitable. (*Required of Sophomores in the Pedagogical course; both semesters, 3 hours.*)

Pedagogy III.—*School Economy.*—White's School Management indicates the scope of this course. School-house architecture, heating, ventilation, school-grounds, organization, discipline, promotions, etc., will be discussed. (*Required of Sophomores in the Pedagogical Course, who have taken Latin I; both semesters, 3 hours.*)

Pedagogy IV.—*History of Education.* Seeley's History of Education. References to Paul Monroe's Text-Book in History of Education. Critical reading and discussion of several short classics in education, such as Comenius' Emile, Pestalozzi's Leonard and Gertrude, Spencer's Essay, etc. (*Required of Juniors in the Pedagogy Course; elective; both semesters, 6 hours.*)

Pedagogy V.—*Recent Topics in Education.* The degree of this course is to discuss some of the important recent movements and tendencies in education. Child Study, Correlation, Manual Training, Agriculture in the Schools, Nature Study, School-Republics, High-School Athletics, etc., will be discussed in connection with reports of the best school systems of Europe and America. (*Required of Seniors in the Pedagogical Course; elective; both semesters, 6 hours.*)

PHILOSOPHY.

THE PRESIDENT.

The courses in Philosophy are designed not only to provide that modicum of knowledge and training which is deemed desirable for the general student, but also to lay the foundation, and possibly furnish the impulse, for further and more technical studies in this department. The class work in each course will serve mainly to coordinate and render consistent a large amount of collateral reading dealing with the several subjects discussed in the text-book. As the work progresses, special studies on given topics will be required from time to time, and the results of these studies will be presented and discussed before the class.

Philosophy I.—*Psychology.* A general introductory course. Titchener's "Outline of Psychology," and James' Briefer Course will be used in class during the first term. During the second term Lloyd Morgan's "Comparative Psychology" will be used in class and portions of Wundt's "Human and Animal Psychology" and Ladd's "Physiological Psychology" will be taken as collateral reading. (*Required of Pedagogical students, Junior year; elective; both semesters, 3 hours.*)

Philosophy II*a.*—*Logic.* An elementary course. Creighton's "Introductory Logic." Lectures and studies in the history, development and systems of logic. Exercises. (*Elective; first semester, 3 hours.*)

Philosophy II*b.*—*Ethics.* A general course. Especial emphasis will be laid on the Principles of Ethics. Lectures and studies in the history of Ethics, and discussion of various ethical systems. Fite's "Introductory Study of Ethics" for class use, and James Seth's "A Study of Ethical Principles" for collateral. (*Elective; second semester, 3 hours.*)

Philosophy III.—*Introduction to the Problems of Philosophy.*—In this course the great problems of Philosophy will be briefly presented and discussed, as, for example, theism, pantheism, materialism, dualism, rationalism, empiricism, etc. Paulsen's "Introduction to Philosophy" will be used as a text, and collateral reading in various authors will be assigned in connection with the topics studied. Special subjects will be assigned for written discussion. (*Elective; both semesters, 3 hours.*)

Philosophy IV *a* and *b*.—This is a course in the History of Philosophy and requires two years for its completion. The work of the first year treats Ancient Philosophy, that of the second Mediæval and Modern. Weber's "History of Philosophy" will be used as a guide text. (*Elective; both semesters; two years, 3 hours.*)

PHYSICS.

PROF. BENTON.

Instruction in Physics is given by (1) recitations, based upon lessons assigned in text-books; (2) laboratory work, in which the student uses his own direct observation to gain knowledge of the subject; (3) lectures, in which experimental demonstrations of the principles under discussion are given; and (4) seminar work in the advanced courses, in which the various members of the class take up different special problems requiring extended study or investigation, and report upon them in turn to the class.

Physics I.—General Physics, including mechanics, heat, acoustics and optics, but not electricity and magnetism. (*Required of Sophomores in all courses; two recitations per week.*)

Physics II.—General laboratory physics, to accompany Physics I. (*Required of Sophomores in the engineering courses;*

elective for other students who are taking [or have taken] Physics I; two exercises of 2 hours each per week.)

Physics III.—General electricity and magnetism, being a continuation of Physics I. This course presupposes the completion of Physics I and Physics II. (*Required of Juniors in the engineering courses; elective for other students; two recitations per week and one laboratory exercise of 2 hours.*)

ADVANCED COURSES IN PHYSICS.

All of the advanced courses in physics presuppose the completion of Physics I and Physics II, and all except the advanced experimental physics require a knowledge of calculus. All are arranged to extend through two semesters, and to require three hours per week of class room work, or six hours of laboratory work. These courses are Junior or Senior electives, and one or more will be offered each year.

Advanced Experimental Physics.—Continuation of the laboratory work of the course in general physics, including further instruction in the use of physical instruments, practice in laboratory manipulation, design of apparatus, and the performance of experiments not provided for in the first year course. (*Laboratory work only.*)

General Mathematical Physics.—Mathematical theories of the various branches of physics; differential equations of mathematical physics; use of Fourier's series. (*Lectures, recitations, seminar work.*)

Mechanics and Acoustics.—The work in mechanics in this course is designed to cover those parts of the subject which are of purely scientific rather than of practical interest, and thus incudes a different field from the course in applied mechanics. Such subjects are taken up as the general properties of matter, kinetic theory of matter, viscosity, capillarity, theory of vibrations. Lectures; recitations, laboratory work.

Heat.—General theory of heat; conduction, radiation; properties of gases and vapors; hygrometry; measurement of high and low temperatures; theory of thermodynamics. (*Lectures, recitations, laboratory.*)

Optics.—Experimental work in dispersion, diffraction, interference, polarization; crystal optics, magneto-optics; design of optical instruments. (*Lectures, recitations, laboratory.*)

Electricity and Magnetism.—This course is intended to include primarily those parts of the subject which are of purely scientific interest; the applications of electricity being covered in the courses in electrical engineering. It includes work in static electricity; primary cells and electro-chemistry; conduction of electricity in gases; Röntgen rays; electric vibrations; general mathematical theory of electricity and magnetism.

ZOOLOGY AND GEOLOGY.

PROF. SELLARDS.

Zoology I.—*A Course in the General Principles of Zoology.* Laboratory study of selected types, and class work with text. (*Required of Sophomores in General Science, Agricultural and Pedagogical courses; elective; both semesters,* 3 *hours.*)

Zoology II.—*Entomology.*—The course in Entomology follows course I in Zoology. Careful attention is given to the structure of insects in general, after which the insect orders are considered, the student being expected to recognize the various orders and the more common families. Emphasis is given to the economic side of entomology. (*Required of Juniors, Natural History group and Sophomores Agriculture course; second semester,* 3 *hours.*)

Zoology III.—*Comparative Study of the Structure of Animals.*—Following and continuing the general course taken in the Sophomore year. (*Elective; both semesters, 5 hours.*)

Physiology.—*A Course in General Physiology.*—Special attention is given to circulation, digestion, and respiration, and to the skeleton. (*Required of Juniors of the Natural History group and Juniors of the Agricultural course; elective; first semester; 3 hours.*)

Geology I.—*A Course in the General Principles of Geology.* —Scott's text-book of Geology is used. Four hours class and one hour of laboratory work. Attention is given in the laboratory to the principal types of rocks, and to the more common fossils. Students who select this course are expected to be able to take occasional Saturday excursions. (*Required of Juniors of the Natural History and Chemical groups, and of Agricultural students; elective; first semester, 5 hours.*)

Geology II.—*Mineralogy.*—Moses and Parson's Mineralogy. Class work on the general character of minerals including the elements of crystallagraphy. Laboratory determination of minerals. (*Required of Juniors of the Chemical group; alternate with Bacteriology for Juniors of the Natural History group; elective; second semester, 5 hours.*)

Geology III.—*Historical Geology.*—Text and Laboratory work.—The geological history and development of continental areas. The geological history and development of life. Chamberlin and Salisbury's "Earth History" is used as text for the course. (*Alternate with Botany and Zoology for Seniors of the Natural History group; both semesters, 5 hours.*)

Graduate Courses.—Students who desire to continue advanced work in zoology or geology will be assigned special problems, or allowed to select particular line of investigation in one of these subjects.

Laboratory.—The department is provided with a well lighted, comfortable laboratory, equipped for the courses offered. The United States Geological Survey Educational Series of rocks is accessible for the use of students of geology. For students of mineraology there is provided a blowpipe collection of one hundred selected mineral species; an accessory blowpipe collection of miscellaneous minerals; a crystal collection of fifty natural crystals; and a reference collection of choice mineral specimens. Historical Geology students are provided with a collection of fossils illustrating the distribution and development of organisms. Opportunity is offered for research along certain lines. The State is exceptionally rich in entomological and zoological problems. Field work in geology will be arranged whenever possible. The department library, office, and room for use of advanced students adjoins the laboratory.

Museum.—The University museum occupies the third floor of Science Hall. The mineralogy collections are at the south end, and consist of a representative collection of minerals with some choice specimens. The geological collections are arranged according to biological groups. Within the group the arrangement is according to geological occurrence. The zoological material is grouped at the north end of the museum.

DEPARTMENT OF MILITARY SCIENCE.

The law establishing the land grant institutions provides that instruction in military science and tactics shall be a part of the course of studies maintained. By this wise provision the nation will always be supplied with intelligent and educated officers, should any unhappy differences with other nations make it necessary to call out the militia in large numbers.

Not only does this legal obligation exist, but it has been shown by experience that military drill promotes physical development, and that it leads to promptness in the discharge of all duties.

It teaches young men how to command others, a quality necessary to success in every pursuit in life.

All able-bodied students, except senior privates, are required to take the military instruction and the drill. Hereafter, proficiency in military science will be requisite for promotion from one class to the next higher, and is made a condition for graduation.

Those excused from military drill on account of physical disability, or for other causes, will be required to utilize the time for other work to be assigned them at the discretion of the President upon the recommendation of the Commandant of Cadets.

As far as possible and consistent with the best interests of discipline and the good of the institution, commissioned officers will be selected from the Senior and Junior classes, and non-commissioned officers from the Sophomore and Freshman classes.

The department is supplied by the Government with 150 cadet rifles and equipments, and a sufficient allowance of ammunition for thorough instruction in the course which is given below.

A silver cup has been provided, which is to remain in the possession of the best drilled company, as determined by the competitive drill during commencement week.

A gold medal is given by the Commandant for individual competitive drill and two medals for the highest averages during target practice.

The military department is a separate department and students are under military discipline only during the performance of purely military duties.

Breaches of military discipline are punished by confinement in study hall during recreation hours, confinement to rooms when not attending university duties, confinement to the campus, and in serious cases by demerits and extra tours. Students during confinement who apply themselves do a great deal of studying

they would not do if permitted to visit the city or loaf around the campus.

Students must provide themselves with the regulation uniform. The expense will not exceed $15 for privates. The uniform is durable and neat, and will be found as economical as any clothing that can be provided. If care is taken one suit will be ample for the year, as they are only required to be worn when attending military duty.

The military duties generally will not occupy more than three hours per week, and are so arranged as to facilitate the advancement of the students in other studies and not interfere with any class room work. The time consumed in drill will be three hours per week, distributed as follows:

Monday, 7:20 A. M., regular drill.....30 minutes.
Tuesday, 7:20 A. M., regular drill.....30 minutes.
Wednesday, 7:20 A. M., guard mounting.....30 minutes.
Thursday, 7:20 A. M., regular drill.....30 minutes.
Friday, 7:20 A. M., regular drill.....30 minutes.
Friday, 4:15 P. M., dress parade.....30 minutes.

Instruction.—The course of military instruction is as follows:

First Semester.—Theoretical and practical instruction in the school of the soldier and of the company in close and extended order; company and battalion inspection; dress parades; reviews; guard mounting and posting of sentinels; escort of the colors.

Second Semester.—Theoretical and practical instruction in the school of the battalion, artillery drill, and battalion ceremonies.

Sighting and position aiming drills, and target practice at the different ranges, 100, 200 and 300 yards. Each Cadet will be required to fire not less than the regular number (50) of shots under the direction of an officer or non-commissioned officer of his company.

The study of the Articles of War and the preparation of certain records which shows how the soldier enters and leaves the service, how he is accounted for, paid, fed, clothed, and armed, and how his military duties are regulated.

The members of the Freshman Class will be required to study and recite upon the Drill Regulations during the *second semester.*

Officers and non-commissioned officers will be required to perfect themselves in the Drill Regulations.

Lectures will be given by the Commandant from time to time on military subjects having reference to such matters as the organization of the United States Army including volunteers and militia; patrols and out-posts; marches; camp and camp hygiene; attack and defence of advance and rear guards and outposts, and convoys; lines and bases of operations.

Any students who desire may take a course in military subjects such as Ordnance and Gunnery, International Law, Military Science, Military Law, and Field Engineering.

Vacancies in the grade of second lieutenant in the army existing on July 1 in each year, after that year's graduates of the military academy have been commissioned, may be filled by appointment, in the following order: (1) of enlisted men of the Army, whose fitness for advancement shall have been determined by competitive examination; (2) from civil life.

This provision makes it possible for anyone under 30 years of age, unmarried, physically sound, and of good moral character, to enlist in the Army, and after two years' service take a competitive examination for appointment as 2nd Lieutenant.

THE SUMMER SCHOOL.

The University Summer School is organized and conducted with special reference to the needs of three classes of students:

1. Teachers who may desire to pursue their studies for a part of the summer either for purposes of general culture and the stimulation that results from intellectual contact and activity, or for the specific purpose of preparing themselves more thoroughly to take the State examinations for county or State certificates. Every effort will be made to make the Summer School of special and immediate benefit to this class; and it is hoped that it may prove a rallying point for the teachers of the State, and be of great service to the general cause of education.

2. Applicants for Admission into the Freshman class of the University of Florida, or other similar institutions, who need special preparation for the entrance examinations. Such students will find attendance upon the Summer School very helpful, as it will afford them an opportunity to review part of the work required for entrance, and to strengthen themselves in those subjects in which they may be deficient.

3. Deficient Students, who have failed on one or more subjects in their regular college course, and who desire to make up their deficiency during the summer in order that they may go on with their regular class. For the present the Summer School does not propose to provide for students of this class who rank higher than Freshmen or Sophomores in their college work; but college men of the lower classes, who have failed in any of their studies, will find the Summer School of great service in helping them to bring up their work.

No formal examination will be required for admission to any of the Summer classes; but those students who expect to receive a certificate of work done in any course may be required,

at the discretion of the professor in charge, to stand a final examination on the work covered during the term.

All classes will meet regularly five times a week. The schedule will be announced at the opening of the term, and will be arranged to accommodate the needs of the largest number. Special cases will receive special attention.

The tuition fee will be $10 for the term of six weeks. This will entitle the student to all the privileges of the school. There will be no other charge except for the material actually used in the work in Chemistry, which will be charged for at actual cost. Any damage to University property must be made good by the student doing the damage.

Board and rooms may be had on the campus at $12 per month. The rooms are equipped with all the necessary heavy furniture, are lighted throughout by electricity, and are attended to by the University janitors. Students must furnish their own pillows, bed linen and towels. The ladies' dormitory will be in charge of a competent matron.

All buildings of the University will be open to students of the Summer School. This includes the use of the gymnasium, and the general library and reading room, from which books and periodicals will be issued according to the usual regulations.

An effort will be made to secure special railroad rates; and applications for such rates should be filed with the President as early as possible.

The courses for 1907 are specified above, pages 46 and 47.

In addition to the regular class room courses, a general popular lecture will be provided twice each week during the term. These lectures will deal with a variety of subjects, both interesting and instructive, and will be open free to the students of the Summer School.

AGRICULTURAL
EXPERIMENT STATION.

GOVERNING BOARD.

N. P. Bryan, *Chairman.*

N. Adams. P. K. Yonge.
R. L. Brown. T. B. King.

OFFICERS AND ASSISTANTS.

P. H. Rolfs, M. S.....*Director and Horticulturist*
*C. M. Conner, B. S.....*Vice Director and Agriculturist*
A. W. Blair, A. M.....*Chemist*
E. W. Berger, Ph. D.....*Assistant Entomologist*
H. S. Fawcett, B. S.....*Assistant Horticulturist and Botanist*
C. F. Dawson, D. V. S.....*Corresponding Veterinarian*
E. H. Sellards, Ph. D.....*Consulting Entomologist*
W. P. Jernigan.....*Auditor and Book-keeper*
L. C. Algee.....*Stenographer and Librarian*
†————.....*Foreman of Farm*
F. M. Stearns.....*Foreman of Gardens and Orchards*

* Superintendent of Farmers' Institutes.
† To be supplied.

AGRICULTURAL EXPERIMENT STATION.

Establishment and Scope.—In accordance with the provisions of the "Hatch" Act, which furnishes annually fifteen thousand ($15,000) dollars for the purpose, the Florida Agricultural Experiment Station was incorporated by the Trustees as a distinct department of the institution in 1887. The station is organized primarily for experiment and research, rather than for instruction. Experience has shown, however, that by judicious management the Experiment Station may be made an important factor in the agricultural education of the students in giving them an insight into experimental investigation of agricultural problems impossible under ordinary conditions. Consequently, while the members of the Station Staff no longer engage in the regular routine of class instruction in the University, every facility will be offered to special and advanced students to prosecute their studies or to carry on their special investigations under the direction and with the aid of the members of the Station Staff. Young men of good preliminary training who are particularly interested in some phase or some problem of Horticulture, Agriculture or Entomology, especially in Florida, are invited to correspond with the Director relative to securing instruction and help in their work.

For the practical benefit of those engaged in agricultural pursuits throughout the State, the results of the investigations conducted at the station are published in the form of bulletins, which are for free distribution. They will be mailed regularly and free of charge to any citizen of the State upon application to the Director.

From time to time Press Bulletins, dealing briefly with current agricultural problems, are issued for distribution to the various newspapers of the State, which are requested to give them circulation among their constituency. Any farmer, or other citi-

zen of the State, who may desire to receive these Press Bulletins direct can obtain them on request.

Correspondence and suggestions from farmers and others interested in the work are much appreciated. Inquiries upon matters of importance to the farmer will, as far as possible, be cheerfully answered.

Resources.—In addition to the $15,000 annually provided by the "Hatch" Act, the present Federal Congress has passed a bill, introduced by Mr. Adams, of Wisconsin, appropriating $15,000 more to the use of the Experiment Station. This fund, however, does not become fully available at once. But the bill provides that $5,000 shall be appropriated the first year, and that this sum shall be increased by $2,000 annually until the full amount, $15,000 annually, shall be reached. Thereafter the appropriation shall be $15,000 each year. This "Adams" fund, however, can be used only for conducting original investigations.

Farmers' Institutes.—The Legislature having made no appropriation for this purpose for the past year, no Farmers' Institutes have been conducted under the regular control and direction of the university. Such work, however, has been done as has been possible with the funds at the institution's disposal; and it is believed that much good would come to the agricultural population of the State by the regular establishment and conduct of Farmers' Institutes in various sections. The purpose of such Institutes is to present practical and timely information to the farmer, and the results hitherto obained have been most gratifying. The Director, Agriculturist, Horticulturist, and other members of the Station Staff, and many prominent specialists in Agriculture, have taken part in these Institutes, and the University wishes them to become a permanent feature of its usefulness. No funds, however, at the disposal of the Experiment Station, can under the law, be used for such a purpose; so that it will be

necessary for provision to be made, either by the Legislature or by those counties which desire to have these Farmers' Institutes. Both the University and the Station are anxious to aid an enterprise that means so much to the agricultural interests of the State, and if the Legislature would appropriate sufficient funds to carry on the work the institution would gladly direct it and conduct the Institutes in various sections of the State. A few thousand dollars spent in such work would yield large returns to the State.

STUDENT ROLL 1905-1906.

GRADUATE STUDENTS.

Name.	*Course of Study*	*Home Address.*
Bridges, B. H.	Special	Lake City.
	B. S., University of Florida, 1905.	
Cawthon, W. S.	Special	Lake City.
	A. B., University of Chicago, 1905.	
Fawcett, H. S.	Natural History	Salem, Ohio.
	B. S., Iowa State College, 1905.	
Ferran, C. H.	Literary	Lake City.
	A. B., Centre College (Ky.), 1897.	
Floyd, W. L.	Natural History	Gainesville
	B. S., S. C. Military Academy, 1886.	
Haseman, L.	Natural History	Linton, Ind.
	A. B., University of Indiana, 1905.	
Jenkins, I. C.	Literary	Lake City.
	A. B., Emory College, 1896.	
Maguire, C. H.	Literary	Ocooe.
	B. S., University of Florida, 1905.	

SENIOR CLASS.

Name.	*Course of Study.*	*Home Address.*
Evans, A. C.	Literary	Tallahassee.
Evans, R. J.	Literary	Tallahassee.
Green, E. P.	Chemical	Arcadia.
Henry, A. M.	Chemical	Lake City.
Munsell, W. A.	Agricultural	Green Cove Springs.
Rivers, C. O.	General Science	Lake City.
Rowlett, W. M.	General Science	Bradentown.
Weller, Frank.	Mathematical	Lake City.
Woodbery, H. S.	Literary	Chaires.

JUNIOR CLASS.

Name.	*Course of Study.*	*Home Address.*
Brown, W. A.	Civil Engineering	Key West.
Bryan, D. S.	Literary	Dania.
Cason, T. Z.	Chemical	Island Grove.

Causey, J. L.	Electrical Engineering	Seville.
Gunter, H.	Natural History	Pierson.
Humphrey, O. W.	Electrical Engineering	Bay City.
Moremen, M. L.	Mathematical	Switzerland.
Neel, Ray	Literary	Westville.
Nielsen, A. R.	Agricultural	White City.
Thompkins, C. A.	Mathematical	Jasper.

SOPHOMORE CLASS.

Name.	*Course of Study.*	*Home Address.*
Barrs, Burton	Literary	Jacksonville.
Canova, C. F.	Civil Engineering	Palatka.
Carlton, D. F.	Literary	Tampa.
Carter, P. J.	Chemical	Marianna.
Earman, J. B.	Literary	West Palm Beach.
Ekman, P. J.	Civil Engineering	Lake City.
Fisher, C. M.	Mathematical	Gainesville.
Gardner, F. B.	Literary	Eustis.
Hackney, W. M.	Literary	Wellborn.
Hicks, C. G.	Literary	Key West.
Hyman, J. P.	Literary	Ocala.
Knight, C. A.	Literary	Starke.
Persons, R. F.	Literary	Fort White.
Saunders, G. B.	Literary	Key West.

FRESHMAN CLASS.

Name.	*Course of Study.*	*Home Address.*
Ames, G. B.	Electrical Engineering	Tallahassee.
Andrew, J. V.	Civil Engineering	Braidentown.
Atkinson, P. A.	Literary	Citronelle.
Bryan, E. C.	Chemical	Kissimmee.
Buie, R. D.	Literary	Gainesville.
Cathey, W. B.	Civil Engineering	Lake City.
Chapin, R. S.	Electrical Engineering	Tallahassee.
Chiles, O. I.	Civil Engineering	Fort White.
Clayton, K. M.	Literary	Live Oak.
Curry, A. C.	Civil Engineering	Key West.
Gibbs, W. W.	Civil Engineering	Bay Hill.
Girvin, R. O.	Civil Engineering	Jacksonville.
Haile, A. R.	Mechanical Engineering	Lake City.

Hall, W. T.	Literary	Ocala.
Henry, E. M.	Electrical Engineering	Lake City.
Holloway, L. W.	Literary	Tallahassee.
Kelley, G. B.	Civil Engineering	Lake City.
Kirk, James	Literary	Jacksonville.
Larson, Chas.	Electrical Engineering	White City.
Maddox, S. T.	Mechanical Engineering	Ocala.
Maguire, F. H.	Literary	Ocooe.
Martin, W. B.	Literary	Watertown.
Nelson, J. W.	Mechanical Engineering	Belleview.
Small, C. C.	Literary	Lake City.
Taylor, A. H., Jr.	Electrical Engineering	Coleman.
Taylor, J. L.	Chemical	Quincy.
Thompson, T. C.	Literary	Bonifay.
Townsend, T. J.	Civil Engineering	Lake Butler.
Van Fleet, R. R.	Mechanical Engineering	Bartow.

SPECIAL STUDENTS—NOT CLASSIFIED.

Name.	*Course of Study.*	*Home Address.*
Brown, C. D.	General I	Lake City.
Carney, Jno.	General III	Tampa
Cape, E. C.	Chemical II	Kissimmee.
Cathey, G. B.	Mechanical Engineering I	Lake City.
Chapman, R. H.	Literary III	Lake Butler.
Dougherty, J. W.	Mechanical Engineering III	High Springs.
Dolley, L. A.	Natural History I	Cocoanut Grove.
Graham, Sandy	General I	Gainesville.
Jarrell, G. T.	Mechanical Engineering III	Lake City.
Jenkins, S. E.	General I	Lake City.
Lykes, J. T.	General I	Tampa
Lykes, J. W.	General III	Tampa
O'Berry, J. A.	Agricultural I	Kissimmee.
Warren, L. F.	General I	Lake City.
Withers, J. D.	General I	Jacksonville.

The Roman numeral after the course indicates as nearly as possible the student's class: I., Freshman; II., Sophomore; III., Junior; IV., Senior.

NORMAL STUDENTS.

Name.	*Course of Study.*	*Home Address.*
Adams, Elbert G.	C. S. Teachers' Course	Lula, Fla.

Allen, Austin..... First Year Normal .....Lecanto.
Barrs, Amander W..... First Year Normal .....High Springs.
Barrs, J. Clarence..... First Year Normal .....High Springs.
Barrs, Newcomb..... Second Year Normal .....High Springs.
Bardin, Karl..... Special .....White Springs.
Bevis, Paul D..... Second Year Normal .....Bascom.
Blanton, R. Salter..... Third Year Normal .....Knights.
Blood, Maurice R..... Second Year Normal .....Lake City.
Campbell, Wm. Olin..... Third Year Normal .....DeFuniak Springs.
Carson, Lamar..... First Year Normal .....Lake City.
Carter, Geo. D..... C. S. Teacher's Course .....Bartow.
Daniel, Edward..... Second Year Normal .....Chipley.
Davis, Darrey D..... Third Year Normal .....DeFuniak Springs.
Dean, Russell H., Jr..... Second Year Normal .....Jacksonville.
Dowling, James H..... Second Year Normal .....Live Oak.
Dowling, Will H..... Second Year Normal .....Live Oak.
Fletcher, Horace B..... C. S. Teacher's Course .....Sycamore.
*Frederick, George S..... Third Year Normal .....Brooksville.
Gunn, C. J..... First Year Normal .....Otter Creek.
Hamilton, Gilbert W..... Special .....Bartow.
Hollandsworth, C. W..... First Year Normal .....Dunnellon.
Horton, Karl..... First Year Normal .....Jacksonville.
Hough, G. DeBerniere.. Second Year Normal .....Jacksonville.
Knight, W. M..... Second Year Normal .....Sumterville.
Liddell, Russell D..... Second Year Normal .....Dalton, Ga.
Maguire, Raymer F..... C. S. Teacher's Course .....Ocoee.
Marcus, Donald..... Second Year Normal .....Tallahassee.
Martin, Lonnie D..... First Year Normal .....Bonifay.
McElroy, Homer..... C. S. Teacher's Course .....Fort White.
Miller, Jesse B..... Second Year Normal .....Graceville.
Miller, Lee..... C. S. Teacher's Course .....Highnote, Ala.
Palmer, Bascom H., Jr..Second Year Normal .....Lake City.
Parker H. Clay..... Second Year Normal .....LaCrosse.
Parker, Paul B..... C. S. Teacher's Course .....Ocoee.
Pearce, Leroy N., Jr.... Second Year Normal .....Alachua.
Robey, Garnet C..... Second Year Normal .....Tampa.
Robinson, Moses R..... Third Year Normal .....Grubbs.
Roe, Arthur I..... First Year Normal .....Arcadia.

* Deceased.

Smith, Rupert A..... Second Year Normal .....Arcadia.
Stephens, F. M..... Second Year Normal .....Alachua.
Stockbridge, L. B..... Special .....Lake City.
Strickland, Charles A..... First Year Normal .....Kissimmee.
Summerour, Wm. Frank..First Year Normal .....Dalton, Ga.
Sumner, David W..... C. S. Teacher's Course .....Fort Myers.
Taylor, R. Pierce..... Special .....Lake City.
Temple, Robert..... First Year Normal .....Tallahassee.
Wetter, Edward Telfair.. C. S. Teacher's Course .....Johnstown.
Wheeler, M. W..... Special .....Gainesville.
Young, Ray H..... First Year Normal .....Lake City.

SUMMARY OF STUDENTS—1905-1906.

1. BY CLASSES.

Graduate Students	8
Seniors	9
Juniors	10
Sophomores	14
Freshmen	29
Special—Not Classified	15
Normal Students	51
Total	136

2. BY RESIDENCE.

Alachua	13
Bradford	4
Citrus	2
Clay	1
Columbia	29
Dade	3
De Soto	3
Duval	7
Gadsden	2
Hamilton	2
Hernando	2
Hillsboro	7
Holmes	4
Jackson	3
Lee	1

Leon	8
Levy	1
Manatee	2
Marion	5
Monroe	4
Orange	4
Osceola	4
Polk	3
Putnam	1
St. John	1
St. Lucie	2
Sumter	3
Suwannee	4
Volusia	2
Walton	2
Washington	1
Total for Florida	131
Alabama	1
Georgia	2
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